

275	280	285
Gln Ser Glu Gly Tyr Gln Asp Leu Ala Thr Arg Gln Glu Leu Met Ala		
290	295	300
Phe Ala Leu Thr His Cys Pro Pro Ser Ser Ile Glu Leu Leu Leu Ala		
305	310	315
Ala Ser Ser Ser Leu Gln Thr Glu Ile Leu Tyr Gln Arg Val Asn Phe		
325	330	335
Gln Ile His His Glu Gly Gly Glu Asn Ile Ser Ala Ser Pro Leu Thr		
340	345	350
Ser Lys Ala Val Gln Glu Asp Glu Val Gly Val Pro Gly Ser Asn Ser		
355	360	365
Ala Asp Leu Leu Arg Trp Thr Thr Ala Thr Thr Met Lys Val Leu Ser		
370	375	380
Asn Thr Thr Thr Thr Thr Lys Ala Val Leu Gln Ala Val Ser Asp Gly		
385	390	395
Gln Trp Trp Lys Lys Ser Leu Thr Tyr Leu Arg Pro Leu Gln Gly Gln		
405	410	415
Lys Cys Gly Gly Ala Tyr Gln Ile Gly Thr Thr Ala Asn Glu Asp Leu		
420	425	430
Glu Lys Gln Gly Cys His Pro Phe Tyr Glu Ser Val Ile Ser Asn Pro		
435	440	445
Phe Val Ala Glu Ser Glu Gly Thr Tyr Asp Thr Tyr Gln His Val Pro		
450	455	460
Val Glu Ser Phe Ala Glu Val Leu Leu Arg Thr Gly Lys Leu Ala Glu		
465	470	475
Ala Lys Asn Lys Gly Glu Val Phe Pro Thr Thr Glu Val Leu Leu Gln		
485	490	495
Leu Ala Ser Glu Ala Leu Pro Asn Asp Met Thr Leu Ala Leu Ala Tyr		
500	505	510
Leu Leu Ala Leu Pro Gln Val Leu Asp Ala Asn Arg Cys Phe Glu Lys		
515	520	525
Gln Ser Pro Ser Ala Leu Ser Leu Gln Leu Ala Ala Tyr Tyr Tyr Ser		
530	535	540
Leu Gln Ile Tyr Ala Arg Leu Ala Pro Cys Phe Arg Asp Lys Cys His		
545	550	555
Pro Leu Tyr Arg Ala Asp Pro Lys Glu Leu Ile Lys Met Val Thr Arg		
565	570	575
His Val Thr Arg His Glu His Glu Ala Trp Pro Glu Asp Leu Ile Ser		
580	585	590
Leu Thr Lys Gln Leu His Cys Tyr Asn Glu Arg Leu Leu Asp Phe Thr		
595	600	605
Gln Ala Gln Ile Leu Gln Gly Leu Arg Lys Gly Val Asp Val Gln Arg		
610	615	620
Phe Thr Ala Asp Asp Gln Tyr Lys Arg Glu Thr Ile Leu Gly Leu Ala		
625	630	635
Glu Thr Leu Glu Glu Ser Val Tyr Ser Ile Ala Ile Ser Leu Ala Gln		
645	650	655
Arg Tyr Ser Val Ser Arg Trp Glu Val Phe Met Thr His Leu Glu Phe		
660	665	670
Pro Phe Thr Asp Ser Gly Leu Ser Thr Leu Glu Ile Glu Asn Arg Ala		
675	680	685
Gln Asp Leu His Leu Phe Glu Thr Leu Lys Thr Asp Pro Glu Ala Phe		
690	695	700
His Gln His Met Val Lys Tyr Ile Tyr Pro Thr Ile Gly Gly Phe Asp		

705 710 715 720
 His Glu Arg Leu Gln Tyr Tyr Phe Thr Leu Leu Glu Asn Cys Gly Cys
 725 730 735
 Ala Asp Leu Gly Asn Cys Ala Ile Lys Pro Glu Thr His Ile Arg Leu
 740 745 750
 Leu Lys Lys Phe Lys Val Val Ala Ser Gly Leu Asn Tyr Lys Lys Leu
 755 760 765
 Thr Asp Glu Asn Met Ser Pro Leu Glu Ala Leu Glu Pro Val Leu Ser
 770 775 780
 Ser Gln Asn Ile Leu Ser Ile Ser Lys Leu Val Pro Lys Ile Pro Glu
 785 790 795 800
 Lys Asp Gly Gln Met Leu Ser Pro Ser Ser Leu Tyr Thr Ile Trp Leu
 805 810 815
 Gln Lys Leu Phe Trp Thr Gly Asp Pro His Leu Ile Lys Gln Val Pro
 820 825 830
 Gly Ser Ser Pro Glu Trp Leu His Ala Tyr Asp Val Cys Met Lys Tyr
 835 840 845
 Phe Asp Arg Leu His Pro Gly Asp Leu Ile Thr Val Val Asp Ala Val
 850 855 860
 Thr Phe Ser Pro Lys Ala Val Thr Lys Leu Ser Val Glu Ala Arg Lys
 865 870 875 880
 Glu Met Thr Arg Lys Ala Ile Lys Thr Val Lys His Phe Ile Glu Lys
 885 890 895
 Pro Arg Lys Arg Asn Ser Glu Asp Glu Ala Gln Glu Ala Lys Asp Ser
 900 905 910
 Lys Val Thr Tyr Ala Asp Thr Leu Asn His Leu Glu Lys Ser Leu Ala
 915 920 925
 His Leu Glu Thr Leu Ser His Ser Phe Ile Leu Ser Leu Lys Asn Ser
 930 935 940
 Glu Gln Glu Thr Leu Gln Lys Tyr Ser His Leu Tyr Asp Leu Ser Arg
 945 950 955 960
 Ser Glu Lys Glu Lys Leu His Asp Glu Ala Val Ala Ile Cys Leu Asp
 965 970 975
 Gly Gln Pro Leu Ala Met Ile Gln Gln Leu Leu Glu Val Ala Val Gly
 980 985 990
 Pro Leu Asp Ile Ser Pro Lys Asp Ile Val Gln Ser Ala Ile Met Lys
 995 1000 1005
 Ile Ile Ser Ala Leu Ser Gly Gly Ser Ala Asp Leu Gly Gly Pro Arg
 1010 1015 1020
 Asp Pro Leu Lys Val Leu Glu Gly Val Val Ala Ala Val His Thr Ser
 1025 1030 1035 1040
 Val Asp Lys Gly Glu Glu Leu Val Ser Pro Glu Asp Leu Leu Glu Trp
 1045 1050 1055
 Leu Arg Pro Phe Cys Ala Asp Asp Ala Trp Pro Val Arg Pro Arg Ile
 1060 1065 1070
 His Val Leu Gln Ile Leu Gly Gln Ser Phe His Leu Thr Glu Glu Asp
 1075 1080 1085
 Ser Lys Leu Leu Val Phe Phe Arg Thr Glu Ala Ile Leu Lys Ala Ser
 1090 1095 1100
 Trp Pro Gln Arg Gln Val Asp Ile Ala Asp Ile Glu Asn Glu Glu Asn
 1105 1110 1115 1120
 Arg Tyr Cys Leu Phe Met Glu Leu Leu Glu Ser Ser His His Glu Ala
 1125 1130 1135
 Glu Phe Gln His Leu Val Leu Leu Leu Gln Ala Trp Pro Pro Met Lys

1140 1145 1150
 Ser Glu Tyr Val Ile Thr Asn Asn Pro Trp Val Arg Leu Ala Thr Val
 1155 1160 1165
 Met Leu Thr Arg Cys Thr Met Glu Asn Lys Glu Gly Leu Gly Asn Glu
 1170 1175 1180
 Val Leu Lys Met Cys Arg Ser Leu Tyr Asn Thr Lys Gln Met Leu Pro
 1185 1190 1195 1200
 Ala Glu Gly Val Lys Glu Leu Cys Leu Leu Leu Asn Gln Ser Leu
 1205 1210 1215
 Leu Leu Pro Ser Leu Lys Leu Leu Leu Glu Ser Arg Asp Glu His Leu
 1220 1225 1230
 His Glu Met Ala Leu Glu Gln Ile Thr Ala Val Thr Thr Val Asn Asp
 1235 1240 1245
 Ser Asn Cys Asp Gln Glu Leu Leu Ser Leu Leu Leu Asp Ala Lys Leu
 1250 1255 1260
 Leu Val Lys Cys Val Ser Thr Pro Phe Tyr Pro Arg Ile Val Asp His
 1265 1270 1275 1280
 Leu Leu Ala Ser Leu Gln Gln Gly Arg Trp Asp Ala Glu Glu Leu Gly
 1285 1290 1295
 Arg His Leu Arg Glu Ala Gly His Glu Ala Glu Ala Gly Ser Leu Leu
 1300 1305 1310
 Leu Ala Val Arg Gly Thr His Gln Ala Phe Arg Thr Phe Ser Thr Ala
 1315 1320 1325
 Leu Arg Ala Ala Gln His Trp Val
 1330 1335

<210> 1099

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1099

acgcgtgctc tctcccgtt ggcaatcagc atggcctttt cgagctcggc ggtgcgcaat
 60
 tgaaccattt cttccagttg cgatttttca gaaagcagcg tcgattgacc ttcggtcagc
 120
 ttgcgcacat agcgcttggt gcggtggca aggatatagg cgagtatcaa tgcacctgcg
 180
 agggcgagga tcgaggcaat ggtcagccag aagcgcaact tgtccatggc tatgttgagg
 240
 gcgattagcc gacgatcttc ttcacccagg aaactgttga tggttttcct gacgtcatcc
 300
 atctggcca
 309

<210> 1100

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1100

Met Asp Asp Val Arg Lys Thr Ile Asn Ser Phe Leu Gly Glu Glu Asp
 1 5 10 15
 Arg Arg Leu Ile Ala Arg Asn Ile Ala Met Asp Lys Leu Arg Phe Trp


```

      20      25      30
Leu Thr Ile Ala Ser Ile Leu Ala Leu Ala Gly Ala Leu Ile Leu Ala
      35      40      45
Tyr Ile Leu Ala Ser Arg Thr Lys Arg Tyr Val Arg Lys Leu Thr Glu
      50      55      60
Gly Gln Ser Thr Leu Leu Ser Glu Lys Ser Gln Leu Glu Glu Met Val
65      70      75      80
Gln Leu Arg Thr Ala Glu Leu Glu Lys Ala Met Leu Ile Ala Lys Arg
      85      90      95
Glu Arg Ala Arg
      100

```

<210> 1101

<211> 540

<212> DNA

<213> Homo sapiens

<400> 1101

```

gtcgcagtta ccaactacgt catgttgagg tctggtcagc cgcttcatgc ctatgatgcc
60
gacaacgtca gcgggacgat tgtggtccgt aaggccacg agggtagca tctattgacc
120
ctcgcagaca ccgatcgac cctcgatcct gacgatctag tcatcgccga cgactcggga
180
gccattggcc tggctggcgt catgggtggt gcggccaccg aagtgactgc tgagacgacg
240
tcaatcatcc tcgagggcgc tcacttcgac ccgatgacgg gcgctcgtgc ttaccgacgc
300
cacaagctcg gttcggaggc ctcccgcgcg tttgagcggg gcgttgatcc gatttgcgcc
360
cataccgcag ccgttcgcgc agcggaattg ctgcgccagt acggcggtgc caccgtcggt
420
gagccacacg tcgttggtga ggtccccgag atgccacgtc aaacgatcaa cgctgattta
480
cctaaccgga ttctcggcac gaaggtgcc aactgaagagg tcatcgagat cttgacgcgt
540

```

<210> 1102

<211> 180

<212> PRT

<213> Homo sapiens

<400> 1102

```

Val Asp Val Thr Asn Tyr Val Met Leu Glu Ser Gly Gln Pro Leu His
1      5      10      15
Ala Tyr Asp Ala Asp Asn Val Ser Gly Thr Ile Val Val Arg Lys Ala
      20      25      30
His Glu Gly Glu His Leu Leu Thr Leu Asp Asp Thr Asp Arg Thr Leu
      35      40      45
Asp Pro Asp Asp Leu Val Ile Ala Asp Asp Ser Gly Ala Ile Gly Leu
      50      55      60
Ala Gly Val Met Gly Gly Ala Ala Thr Glu Val Thr Ala Glu Thr Thr
65      70      75      80
Ser Ile Ile Leu Glu Gly Ala His Phe Asp Pro Met Thr Gly Ala Arg

```


<400> 1104															
Met	Tyr	Gly	His	Pro	Val	Asp	Pro	Met	Val	Trp	Ala	Arg	Leu	Gly	Pro
1				5					10					15	
Arg	Phe	Gly	Ala	Met	Gly	Ser	Gly	Ala	Ala	Met	Gly	Phe	Phe	Leu	Cys
			20					25					30		
Ser	Pro	Leu	Tyr	Trp	Val	Gly	Ser	Gly	Gly	Glu	Thr	His	Ala	Asp	Lys
		35					40					45			
Gly	Arg	Ser	Gly	Cys	Arg	Arg	Ala	Gly	Ile	His	Arg	Asn	Ser	Pro	Tyr
	50					55				60					
Cys	Gly	Tyr	Val	His	Gln	Cys	Gly	Gly	Gly	Arg	Arg	Gln	Ala	Gly	Met


```
<210> 1105
<211> 448
<212> DNA
<213> Homo sapiens
```

```
<210> 1106
<211> 149
<212> PRT
<213> Homo sapiens
```

1034

145

<210> 1107

<211> 618

<212> DNA

<213> Homo sapiens

<400> 1107

acgcgttgat gaagtacctg ccacgcttca gcaatgacgg ctcggtgaac ggcttctata
 60
 tctttgttat cgatgagacc gaacgcaaac tcaccgaaga ggccctgcgc cacctcaacg
 120
 agaacctcga agagcgcgtc gcccagcgca cacaggcgct ggctgaagcc aaccaacgcc
 180
 tggcaaaaca aaatgttcaa acgcaagcgc gccgaagacg cgctgcgtca cgcgcagaaa
 240
 atggaagccg gggggccagct caccggcggc atcgcccatg atttcaacaa catgctgacc
 300
 gggattatcg gcagcctgga cttgatgcag cgctacatcn aggcggggcg cagcgacgaa
 360
 atcgcccgnc ttactgacgc cgccgtatcg tccgcccacg gcgcgggcgc cctcaccat
 420
 cggctgctgg cgttctcgcg ccgccagtcg ctggccccc gcccgctgga cccaaccag
 480
 ctggtagcgt ccctggagga tctgttccag cgaaccaaag gcgcgcatat cacgtcaaa
 540
 gtgcaactgg gccgcgatat ctggcccgctg aataccgatg ccagccagtt ggaaaacgcc
 600
 ctgctcaacc tggcgatc
 618

<210> 1108

<211> 182

<212> PRT

<213> Homo sapiens

<400> 1108

Met	Arg	Pro	Asn	Ala	Asn	Ser	Pro	Lys	Arg	Pro	Cys	Ala	Thr	Ser	Thr
1				5					10					15	
Arg	Thr	Ser	Lys	Ser	Ala	Ser	Pro	Ser	Ala	His	Arg	Arg	Trp	Leu	Lys
			20					25					30		
Pro	Thr	Asn	Ala	Trp	Gln	Asn	Lys	Met	Phe	Lys	Arg	Lys	Arg	Ala	Glu
		35					40					45			
Asp	Ala	Leu	Arg	His	Ala	Gln	Lys	Met	Glu	Ala	Gly	Gly	Gln	Leu	Thr
	50					55					60				
Gly	Gly	Ile	Ala	His	Asp	Phe	Asn	Asn	Met	Leu	Thr	Gly	Ile	Ile	Gly
65					70					75				80	
Ser	Leu	Asp	Leu	Met	Gln	Arg	Tyr	Ile	Xaa	Ala	Gly	Arg	Ser	Asp	Glu
				85					90					95	
Ile	Gly	Arg	Leu	Thr	Asp	Ala	Ala	Val	Ser	Ser	Ala	His	Arg	Ala	Ala
			100					105				110			
Ala	Leu	Thr	His	Arg	Leu	Leu	Ala	Phe	Ser	Arg	Arg	Gln	Ser	Leu	Ala
		115					120					125			
Pro	Arg	Pro	Leu	Asp	Pro	Asn	Gln	Leu	Val	Ala	Ser	Leu	Glu	Asp	Leu

130 135 140
 Phe Gln Arg Thr Lys Gly Ala His Ile Thr Leu Lys Val Gln Leu Gly
 145 150 155 160
 Arg Asp Ile Trp Pro Val Asn Thr Asp Ala Ser Gln Leu Glu Asn Ala
 165 170 175
 Leu Leu Asn Leu Ala Ile
 180

<210> 1109
 <211> 325
 <212> DNA
 <213> Homo sapiens

<400> 1109
 accggtgagc atcagggagg caccatgcag acgactctcc catccagtct caagccgtcc
 60
 agcctcaaga tcgtcgcacc gctggggggc atcctcgtgc ccctggatca ggtgcccgat
 120
 cccgttttcg cccagaagat ggtggggagac gggatctccc tggaccccat ctcaaacgaa
 180
 ttgctggcgc cggtcgccgg caccgtgacc cagctccaca acgcccacca cgcgctcacg
 240
 atcacgaccc cggaaggcat cgagggttctg gtccatatcg gactggatac cgtgatgctg
 300
 cgcggcgaca gctatccccc ccccn
 325

<210> 1110
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 1110
 Thr Gly Glu His Gln Gly Gly Thr Met Gln Thr Thr Leu Pro Ser Ser
 1 5 10 15
 Leu Lys Pro Ser Ser Leu Lys Ile Val Ala Pro Leu Gly Gly Ile Leu
 20 25 30
 Val Pro Leu Asp Gln Val Pro Asp Pro Val Phe Ala Gln Lys Met Val
 35 40 45
 Gly Asp Gly Ile Ser Leu Asp Pro Ile Ser Asn Glu Leu Leu Ala Pro
 50 55 60
 Val Ala Gly Thr Val Thr Gln Leu His Asn Ala His His Ala Leu Thr
 65 70 75 80
 Ile Thr Thr Pro Glu Gly Ile Glu Val Leu Val His Ile Gly Leu Asp
 85 90 95
 Thr Val Met Leu Arg Gly Asp Ser Tyr Pro Pro Pro
 100 105

<210> 1111
 <211> 385
 <212> DNA
 <213> Homo sapiens

<400> 1111

nnacgcgtcg ccccggtgcg cctggcagtg ggagaagagc atgaccttac cgagctcgcg
 60
 actgaactcg tcaacgccgc ctatagccgg gttgacatgg tggaaacgccg tggcgaattc
 120
 gcagtacgtg gcggcatcgt cgacgtcttc ccaccggtgc tagaacaccc ggtccgtatc
 180
 gatttttttg gtgacgagat cgaggaaatg acctccttcg cggtagccga ccagcgatcc
 240
 accgacgaga ctcaccaaga actgatctgc gctccttgcc gtgagctcat cctcaccgac
 300
 gaggtacgtt cccgagccaa ggctttgctg accgaccatc ccgaattagc tgacatgttg
 360
 gagcggatcg gcaacggtca agctt
 385

<210> 1112

<211> 128

<212> PRT

<213> Homo sapiens

<400> 1112

Xaa	Arg	Val	Ala	Pro	Val	Arg	Leu	Ala	Val	Gly	Glu	Glu	His	Asp	Leu
1				5				10						15	
Thr	Glu	Leu	Ala	Thr	Glu	Leu	Val	Asn	Ala	Ala	Tyr	Ser	Arg	Val	Asp
			20					25						30	
Met	Val	Glu	Arg	Arg	Gly	Glu	Phe	Ala	Val	Arg	Gly	Gly	Ile	Val	Asp
			35				40						45		
Val	Phe	Pro	Pro	Val	Leu	Glu	His	Pro	Val	Arg	Ile	Asp	Phe	Phe	Gly
			50				55					60			
Asp	Glu	Ile	Glu	Glu	Met	Thr	Ser	Phe	Ala	Val	Ala	Asp	Gln	Arg	Ser
65					70					75				80	
Thr	Asp	Glu	Thr	His	Gln	Glu	Leu	Ile	Cys	Ala	Pro	Cys	Arg	Glu	Leu
				85					90					95	
Ile	Leu	Thr	Asp	Glu	Val	Arg	Ser	Arg	Ala	Lys	Ala	Leu	Leu	Thr	Asp
			100					105					110		
His	Pro	Glu	Leu	Ala	Asp	Met	Leu	Glu	Arg	Ile	Gly	Asn	Gly	Gln	Ala
			115				120						125		

<210> 1113

<211> 400

<212> DNA

<213> Homo sapiens

<400> 1113

nnncgaccga tgagcgatcg cgaaccgcgc aacctgggat acccctacgt cgagtctttc
 60
 cactcggact tctcggggac cggcggagtc gatcagaccg accgttctac caatatcgac
 120
 gagcacacca tcgaggagat gcatcagatc gcctcgcgtt accccgactc ccgttcgggc
 180
 ttgctgccga tcttgcaact ggttcagtcg gtggacggac gcatctcgcc ggctcggtatt
 240
 gagactgcgg ctgaagtgtc cggcattacc accgcccagg tatccggggt ggcgaccttc
 300

tacaccatgt ataagaagca ccctgcgggc cagcatcaca tcggtgtctg caccacggcg
 360
 ctgtgcgccg tcatgggtgg cgaggaggtg cttgcccgtn
 400

<210> 1114

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1114

Xaa	Arg	Pro	Met	Ser	Asp	Arg	Glu	Pro	Val	Asn	Leu	Gly	Tyr	Pro	Tyr
1				5				10					15		
Val	Glu	Ser	Phe	His	Ser	Asp	Phe	Ser	Gly	Thr	Gly	Gly	Val	Asp	Gln
			20					25					30		
Thr	Asp	Arg	Ser	Thr	Asn	Ile	Asp	Glu	His	Thr	Ile	Glu	Glu	Met	His
			35				40					45			
Gln	Ile	Ala	Ser	Arg	Tyr	Pro	Asp	Ser	Arg	Ser	Ala	Leu	Leu	Pro	Ile
	50					55				60					
Leu	His	Leu	Val	Gln	Ser	Val	Asp	Gly	Arg	Ile	Ser	Pro	Val	Gly	Ile
65					70					75				80	
Glu	Thr	Ala	Ala	Glu	Val	Leu	Gly	Ile	Thr	Thr	Ala	Gln	Val	Ser	Gly
			85					90					95		
Val	Ala	Thr	Phe	Tyr	Thr	Met	Tyr	Lys	Lys	His	Pro	Ala	Gly	Gln	His
			100					105					110		
His	Ile	Gly	Val	Cys	Thr	Thr	Ala	Leu	Cys	Ala	Val	Met	Gly	Gly	Glu
		115					120					125			
Glu	Val	Leu	Ala	Arg											
			130												

<210> 1115

<211> 402

<212> DNA

<213> Homo sapiens

<400> 1115

tctccgactg cacagattag agaaaggact gcgatgacca ttcgaccac tcatgttggt
 60
 tccctgcccc gcacccccga gctgatcgag gcgaatcgtg cgcgccgtga gggttcgtc
 120
 ggcgaggctg acttcacgtc gctgctgcag gatcagggtg acggcggttg gaagcgtcag
 180
 gctgagattg gcctggatat cgtcaatgac ggcgagtacg gtcacgcgat gcttgacacg
 240
 gttgattacg gcgcgtggtg gacgtattcc atctctcgtt tcggcgggct gtcctttgag
 300
 gacgtgcagc gttttgatgt gcgtcccccg jctggccgtg acggtcgcct gtctttctcg
 360
 tcgttcgtg agcgccgcga ctggcagcgt ttccggacgc gt
 402

<210> 1116

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1116

```

Ser Pro Thr Ala Gln Ile Arg Glu Arg Thr Ala Met Thr Ile Arg Thr
 1           5           10           15
Thr His Val Gly Ser Leu Pro Arg Thr Pro Glu Leu Ile Glu Ala Asn
      20           25           30
Arg Ala Arg Arg Glu Gly Ser Leu Gly Glu Ala Asp Phe Thr Ser Leu
      35           40           45
Leu Gln Asp Gln Val Asp Gly Val Val Lys Arg Gln Ala Glu Ile Gly
      50           55           60
Leu Asp Ile Val Asn Asp Gly Glu Tyr Gly His Ala Met Leu Asp Thr
      65           70           75           80
Val Asp Tyr Gly Ala Trp Trp Thr Tyr Ser Ile Ser Arg Phe Gly Gly
      85           90           95
Leu Ser Phe Glu Asp Val Gln Arg Phe Asp Val Arg Pro Pro Ala Gly
      100          105          110
Arg Asp Gly Arg Leu Ser Phe Ser Ser Phe Ala Glu Arg Arg Asp Trp
      115          120          125
Gln Arg Phe Arg Thr Arg
      130

```

<210> 1117

<211> 307

<212> DNA

<213> Homo sapiens

<400> 1117

```

ggcgccggtc ttgccctggc tggaagtggc atgcagacct tggcgcgga cccgctggct
60
gaccctacc tgctaggtgt atcggtggc gcaagtgtgg gagcaaccgc agtcatcgct
120
ttggggatgt tcacttcgtg gggaactcac cgactcactc ttgggtgccct tgtagggggc
180
ttggcggcag ctgcattggt ctatctcatt tccatggcgc aaggaggcat gacgccgctt
240
cggttggtgc tgcggggcgt ggtgtgtgcc tcggcggttct cgcgttggcg agtttctcgc
300
tctttcgc
307

```

<210> 1118

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1118

```

Gly Ala Gly Leu Ala Leu Ala Gly Ser Gly Met Gln Thr Leu Val Arg
 1           5           10           15
Asn Pro Leu Ala Asp Pro Tyr Leu Leu Gly Val Ser Ala Gly Ala Ser
      20           25           30
Val Gly Ala Thr Ala Val Ile Ala Leu Gly Met Phe Thr Ser Trp Gly
      35           40           45
Thr His Arg Leu Thr Leu Gly Ala Leu Val Gly Ala Leu Ala Ala Ala

```



```

      50              55              60
Ala Leu Val Tyr Leu Ile Ser Met Ala Gln Gly Gly Met Thr Pro Leu
65              70              75              80
Arg Leu Val Leu Ser Gly Val Val Leu Ser Ser Ala Phe Ser Arg Trp
      85              90              95
Arg Val Ser Ser Ser Phe
      100

```

<210> 1119
 <211> 353
 <212> DNA
 <213> Homo sapiens

```

<400> 1119
cgcgctccttg agatgcttga gcaggctcggg attgaggatc cagccagggt gatggattcc
60
tatccgcatac aactgtccgg tggccagcgt caacggggttc tgcttgccat ggcgttggtg
120
aactcgccgg atctgtctcat ttgtgacgag ccgacgaccg ccttggacgt cacggtgcag
180
tctcaggtac tggcgactat cgatgaggtg cttgactcgg ttggtgccgc atgcctattt
240
attaccacacg atttggcggt tgtctcgac atctgccggg agcttatcgt gatgacgtcg
300
ggcaaggctcg ttgaagccgg atcagcgcgt gatgtgttat ctcaccctga tca
353

```

<210> 1120
 <211> 117
 <212> PRT
 <213> Homo sapiens

```

<400> 1120
Arg Val Leu Glu Met Leu Glu Gln Val Gly Ile Glu Asp Pro Ala Arg
1              5              10              15
Val Met Asp Ser Tyr Pro His Gln Leu Ser Gly Gly Gln Arg Gln Arg
      20              25              30
Val Leu Leu Ala Met Ala Leu Val Asn Ser Pro Asp Leu Leu Ile Cys
      35              40              45
Asp Glu Pro Thr Thr Ala Leu Asp Val Thr Val Gln Ser Gln Val Leu
      50              55              60
Ala Thr Ile Asp Glu Val Leu Asp Ser Val Gly Ala Ala Cys Leu Phe
65              70              75              80
Ile Thr His Asp Leu Ala Val Val Ser His Ile Cys Arg Glu Leu Ile
      85              90              95
Val Met Thr Ser Gly Lys Val Val Glu Ala Gly Ser Ala Arg Asp Val
      100              105              110
Leu Ser His Pro Asp
      115

```

<210> 1121
 <211> 406
 <212> DNA
 <213> Homo sapiens

<400> 1121

tgatcaccca tgctccactc gaccgcgcgc tcgacgatgc gacggctgag acgatgctcg
 60
 cccagggcac ggtgttcac cgcaccttga cgatgatgaa aggcgtcgcc gcgaatctca
 120
 ccgcagcggg cgttcccggg gtgagctatg cacacgcca cgagagcacg cgcgcgatgc
 180
 atgccgcggg cgttccgggc ctggccggca ccgacgccta catcgggtcc ttcacacggg
 240
 catcgccgcc atacggcgag agcatgcacg acgaagacgc ctacatcggg ctctcgaac
 300
 gggcaatgcc gccatacggc gagagcatgc acgacgaact cgctctgctc gtggacgccg
 360
 gcctgtcaac agccgaagcg ctgcgcgctg ccacctcgac gggcgc
 406

<210> 1122

<211> 117

<212> PRT

<213> Homo sapiens

<400> 1122

Met	Leu	Ala	Gln	Gly	Thr	Val	Phe	Ile	Pro	Thr	Leu	Thr	Met	Met	Lys
1			5						10				15		
Gly	Val	Ala	Ala	Asn	Leu	Thr	Ala	Ala	Gly	Val	Pro	Gly	Val	Ser	Tyr
		20					25				30				
Ala	His	Ala	His	Glu	Ser	Thr	Arg	Ala	Met	His	Ala	Ala	Gly	Val	Pro
	35					40				45					
Val	Leu	Ala	Gly	Thr	Asp	Ala	Tyr	Ile	Gly	Ser	Phe	Thr	Arg	Ala	Ser
	50				55					60					
Pro	Pro	Tyr	Gly	Glu	Ser	Met	His	Asp	Glu	Asp	Ala	Tyr	Ile	Gly	Leu
65				70				75			80				
Leu	Glu	Arg	Ala	Met	Pro	Pro	Tyr	Gly	Glu	Ser	Met	His	Asp	Glu	Leu
		85					90				95				
Ala	Leu	Leu	Val	Asp	Ala	Gly	Leu	Ser	Thr	Ala	Glu	Ala	Leu	Arg	Ala
		100					105				110				
Ala	Thr	Ser	Thr	Gly											
		115													

<210> 1123

<211> 337

<212> DNA

<213> Homo sapiens

<400> 1123

gccggcgatg cgttcattaa ggcctaagat gcgcgcgacgc ctccccgctt tctcgcctt
 60
 cgctccacc gcccttgccg cagcggggat ggtgggggtgc tcgtccgagg gggcatcgcc
 120
 aagcgaatgc tcccctgttg atattgccgc agtgcgcgag gccctgccgc attcgctcgc
 180
 taaggcgaag ctcgaccgc actccaccaa cgaggatgaa cactcctttt ccattgctcta
 240

ccgcgcgcaa gataaggagc aggtcagctt gctggggacg aagtatgagg ccgacggtgc
 300
 acccgtctgc cccgatgacc ccaatgaggc agcgcgc
 337

<210> 1124
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 1124
 Met Arg Ser Leu Arg Pro Lys Met Arg Arg Arg Leu Pro Ala Phe Leu
 1 5 10 15
 Ala Leu Ala Ser Thr Ala Leu Ala Ala Ala Gly Met Val Gly Cys Ser
 20 25 30
 Ser Glu Gly Ala Ser Pro Ser Glu Cys Ser Pro Val Asp Ile Ala Ala
 35 40 45
 Val Arg Glu Ala Leu Pro His Ser Leu Ala Lys Ala Lys Leu Asp Pro
 50 55 60
 His Ser Thr Asn Glu Asp Glu His Ser Phe Ser Met Leu Tyr Arg Ala
 65 70 75 80
 Gln Asp Lys Glu Gln Val Ser Leu Leu Gly Thr Lys Tyr Glu Ala Asp
 85 90 95
 Gly Ala Pro Val Cys Pro Asp Asp Pro Asn Glu Ala Ala Arg
 100 105 110

<210> 1125
 <211> 555
 <212> DNA
 <213> Homo sapiens

<400> 1125
 mncttgaatc gaatcggcat tgcgtctaaa catgacgttg agacactctc tgctaagctc
 60
 gaagagctga cggcattgct agaacgtgtc gcgcgtaaac actaaggaga catcgggatg
 120
 gctgttaaaa agactactca gaaagaaggc agctcgtgga tcgggggaagt tgaaaaatat
 180
 tcccgtaaaa tctggcttgc tggtttaggc gtgtactcga aggttagcag tgacggcggc
 240
 aaatacttcg agacgttggt caaggacggc gagaaggccg agaagttgac caagagccca
 300
 gtcggtaaaa aagtagaggc ggcaaaagcg agcgccggtt ctgcgaaatc gagcatttcg
 360
 gatacctggg gcaagttgga agagactttc gacaagcgtc tcaacagtgc tatttcgcga
 420
 ttgggcgtgc ccagcaaagc ggaactgaag acgctgcaca gcaaggtcga taccctgacc
 480
 aagcaaatcg aaaaactcac cgggtgcaaaa gtggccccgg ctaaaacggc agccgctaaa
 540
 cctgctgcc aagctt
 555

<210> 1126

<211> 146
 <212> PRT
 <213> Homo sapiens

<400> 1126
 Met Ala Val Lys Lys Thr Thr Gln Lys Glu Gly Ser Ser Trp Ile Gly
 1 5 10 15
 Glu Val Glu Lys Tyr Ser Arg Lys Ile Trp Leu Ala Gly Leu Gly Val
 20 25 30
 Tyr Ser Lys Val Ser Ser Asp Gly Gly Lys Tyr Phe Glu Thr Leu Val
 35 40 45
 Lys Asp Gly Glu Lys Ala Glu Lys Leu Thr Lys Ser Pro Val Gly Lys
 50 55 60
 Lys Val Glu Ala Ala Lys Ala Ser Ala Gly Ser Ala Lys Ser Ser Ile
 65 70 75 80
 Ser Asp Thr Trp Gly Lys Leu Glu Glu Thr Phe Asp Lys Arg Leu Asn
 85 90 95
 Ser Ala Ile Ser Arg Leu Gly Val Pro Ser Lys Ala Glu Leu Lys Thr
 100 105 110
 Leu His Ser Lys Val Asp Thr Leu Thr Lys Gln Ile Glu Lys Leu Thr
 115 120 125
 Gly Ala Lys Val Ala Pro Ala Lys Thr Ala Ala Ala Lys Pro Ala Ala
 130 135 140
 Lys Leu
 145

<210> 1127
 <211> 352
 <212> DNA
 <213> Homo sapiens

<400> 1127
 cccgaccgcg tactcgtggt cgggtgccgga gtgatgggtg cagcacacgc acacgcgctc
 60
 cgcggttccc tccaggcagt cgtgtgcggc gtggtcgacc tgcaggagcg agcagcgcaa
 120
 tcactcgctt cggaagtggg cgtaccgggg ttcaccgacc tgggtgaaggc gatcgagtcg
 180
 accgctccgg acgcgcgggt catcgccaag ccggactcgg ctcaccgcca accggctgag
 240
 accgccatcg acgcggcct tgccgtcctg gtcgagaaac cgctcgccac gaccgtcgat
 300
 gacgccgaag cgatcgtgct ccgcgctgaa cgggcccggc tccgtctcat ga
 352

<210> 1128
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 1128
 Pro Asp Arg Val Leu Val Val Gly Ala Gly Val Met Gly Ala Ala His
 1 5 10 15
 Ala His Ala Leu Arg Gly Ser Leu Gln Ala Val Val Cys Gly Val Val


```

      20      25      30
Asp Leu Gln Glu Arg Ala Ala Gln Ser Leu Ala Ser Glu Val Gly Val
      35      40      45
Pro Gly Phe Thr Asp Leu Val Lys Ala Ile Glu Ser Thr Ala Pro Asp
      50      55      60
Ala Ala Val Ile Ala Thr Pro Asp Ser Ala His Arg Gln Pro Ala Glu
      65      70      75      80
Thr Ala Ile Asp Ala Gly Leu Ala Val Leu Val Glu Lys Pro Leu Ala
      85      90      95
Thr Thr Val Asp Asp Ala Glu Ala Ile Val Leu Arg Ala Glu Arg Ala
      100      105      110
Gly Val Arg Leu Met
      115

```

<210> 1129
 <211> 336
 <212> DNA
 <213> Homo sapiens

```

<400> 1129
ntggcagccc tggaggagcc gatggtggac ctggacggcg agctgccttt cgtgcggccc
60
ctgccccaca ttgccgtgct ccaggacgag ctgccgcaac tcttccagga tgacgacgtc
120
ggggccgatg aggaagaggc agagttgcgg ggcgaacaca cgctcacaga gaagtttgtc
180
tgcttgatg actccttttg ccatgactgc agcttgacct gtgatgactg caggaacgga
240
gggacctgcc tcttgggcct ggatggctgg gattgccccg agggctggac tgggctcatc
300
tgcaatgaga cttggctctc gggctgcatg gatatt
336

```

<210> 1130
 <211> 112
 <212> PRT
 <213> Homo sapiens

```

<400> 1130
Xaa Ala Ala Leu Glu Glu Pro Met Val Asp Leu Asp Gly Glu Leu Pro
1      5      10      15
Phe Val Arg Pro Leu Pro His Ile Ala Val Leu Gln Asp Glu Leu Pro
      20      25      30
Gln Leu Phe Gln Asp Asp Asp Val Gly Ala Asp Glu Glu Glu Ala Glu
      35      40      45
Leu Arg Gly Glu His Thr Leu Thr Glu Lys Phe Val Cys Leu Asp Asp
      50      55      60
Ser Phe Gly His Asp Cys Ser Leu Thr Cys Asp Asp Cys Arg Asn Gly
      65      70      75      80
Gly Thr Cys Leu Leu Gly Leu Asp Gly Trp Asp Cys Pro Glu Gly Trp
      85      90      95
Thr Gly Leu Ile Cys Asn Glu Thr Trp Ser Ser Gly Cys Met Asp Ile
      100      105      110

```


<210> 1131
 <211> 672
 <212> DNA
 <213> Homo sapiens

<400> 1131
 gcgttggtgg tgctcatggc ccgggaaaat ccgctggatc aatacctctt tgagcacccc
 60
 gaattattgt tctcgtcctc ggtggaatcg actgtgttgc acccgataa cccgtatgtg
 120
 ctgcggccgc acgtggccgc ggccgcccag gaggcatacc tctcccctgc ggacgaagag
 180
 ttttacgggt cggcctttgc cgggatatgc aaaacgctga caggccagaa cgtactgcca
 240
 cgtcgcggaa atcggtgtt ctggactcgt ccggaacggg ctgtcgacgc catcgacctg
 300
 cgatcggcgg caggcaaagg gattgacatt atcgacgtgt ccaccgggag ggtcatcggg
 360
 gtagtcgacg aagccgccgc agaccgtacc gtgcatccag gcgcggtgta cctgcatcag
 420
 ggggatcagt ggctggtcga cgaatacaac ccggtcgagc accacgccct ggtgcaccag
 480
 gacctgccgg gatattggac tcaaccgcag tcagcgtcga cggtgagaat ccttcgggag
 540
 gagagacgtc gcgcttgtgg tcccggatat gtggcgtgcg ggcaggtgga actgacagag
 600
 caagttgttg ggtatctgcg tcgcgacgaa ttcaccaatg atgtgtggta ctgcgtggcc
 660
 ctcgagatgc cc
 672

<210> 1132
 <211> 224
 <212> PRT
 <213> Homo sapiens

<400> 1132
 Ala Leu Val Val Leu Met Ala Arg Glu Asn Pro Leu Asp Gln Tyr Leu
 1 5 10 15
 Phe Glu His Pro Glu Leu Leu Phe Ser Ser Ser Val Glu Ser Thr Val
 20 25 30
 Leu His Pro Asp Asn Pro Tyr Val Leu Gly Pro His Val Ala Ala Ala
 35 40 45
 Ala Gln Glu Ala Tyr Leu Ser Pro Ala Asp Glu Glu Phe Tyr Gly Ser
 50 55 60
 Ala Phe Ala Gly Ile Cys Lys Thr Leu Thr Gly Gln Asn Val Leu Arg
 65 70 75 80
 Arg Arg Gly Asn Arg Leu Phe Trp Thr Arg Pro Glu Arg Ala Val Asp
 85 90 95
 Ala Ile Asp Leu Arg Ser Ala Ala Gly Lys Gly Ile Asp Ile Ile Asp
 100 105 110
 Val Ser Thr Gly Arg Val Ile Gly Val Val Asp Glu Ala Ala Ala Asp
 115 120 125
 Arg Thr Val His Pro Gly Ala Val Tyr Leu His Gln Gly Asp Gln Trp

130		135		140
Leu Val Asp Glu Tyr Asn Pro Val Glu His His Ala Leu Val His Gln				
145		150		155
Asp Leu Pro Gly Tyr Trp Thr Gln Pro Gln Ser Ala Ser Thr Val Arg				
	165		170	175
Ile Leu Arg Glu Glu Arg Arg Arg Ala Cys Gly Pro Gly Tyr Val Ala				
	180		185	190
Cys Gly Gln Val Glu Leu Thr Glu Gln Val Val Gly Tyr Leu Arg Arg				
	195		200	205
Asp Glu Phe Thr Asn Asp Val Trp Tyr Ser Leu Ala Leu Glu Met Pro				
210		215		220

<210> 1133
 <211> 796
 <212> DNA
 <213> Homo sapiens

<400> 1133
 acgcgtgaag gggggtccag cgggtgtggc actcgatgac aagacagttt gagagcggct
 60
 tgtctccggg gacctggcgt aggtctcttc tgccttaacc cttggctttt gcaattcctc
 120
 tgtctgtcct ccatacaagc ttcttgcccc tagggaggac gggcttctta acagggggag
 180
 ccggttctctg tcctaacccc actggcatct tacactctgg gagatagctt cccctgaga
 240
 ggcgagttag ccacgtaagg ggaggtgggc gatggcttcc cttctgtctt gggttggggg
 300
 agtcaggtac agtatttttt cttttaaaagc atcattgatc acataataag gtttgcata
 360
 gtccttaatc acagacctgt gaaatttga gaattcacgg cacctaggat gggagtgagc
 420
 ttctgattgt gagctgattt gggagctaac ctcaaggaaa ctctcttgc aagccccctg
 480
 ctgggtgtcg gggccttcgc caggacctc ccggggactc tggacgctct ttgtctgccc
 540
 ttctttttcc ctacctcgc tccccgtga gaaagtggg ctcatgcagc tcagctcagt
 600
 gacagagggt ttattagggg tagctctggg acccatcttt tggtgatttc ttctctctct
 660
 ttctctaata gaataattgt ttctgtctac acttctttat tttctctct ctacagctgc
 720
 cttctaaaaa tgtgcttttc tgttctgca gaactgaage ttgcatggcc tttgttgtga
 780
 ctttccttc acgcgt
 796

<210> 1134
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 1134
 Met Gly Pro Arg Ala Thr Pro Asn Lys Pro Ser Val Thr Glu Leu Ser


```

      1           5           10           15
Cys Met Ser Pro Thr Phe Ser Arg Gly Ser Glu Val Arg Glu Lys Glu
      20           25           30
Gly Gln Thr Lys Ser Val Gln Ser Pro Arg Glu Val Pro Gly Glu Gly
      35           40           45
Pro Asp Thr Gln Gln Gly Ala Cys Lys Arg Ser Phe Leu Glu Val Ser
      50           55           60
Ser Gln Ile Ser Ser Gln Ser Glu Ala His Ser His Pro Arg Cys Arg
      65           70           75           80
Glu Phe Ser Lys Phe His Arg Ser Val Ile Lys Asp Tyr Asp Lys Pro
      85           90           95
Tyr Tyr Val Ile Asn Asp Ala Leu Lys Glu Lys Ile Leu Tyr Leu Thr
      100          105          110
Pro Pro Thr Gln Asp Arg Arg Glu Ala Ile Ala His Leu Pro Leu Arg
      115          120          125
Gly Ser Leu Ala Ser Gln Gly Glu Ala Ile Ser Gln Ser Val Arg Cys
      130          135          140
Gln Trp Gly
145

```

<210> 1135

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1135

```

gatcaggcca cacaggacaa cttcgagaag ggctccatct tcccaccctt caccagcatc
60
agaaagatct ctgcgcacat cgctgcagcc gtggctgcaa aagcctacga gctcggctctg
120
gcgaccgctc tgccctcccc cagcgacctg gtgaaatatg cagagaactg catgtacact
180
cccgtctacc gcaactaccg gtagtgctgc ggggatcaat tttgcagtaa taaaaaatct
240
actatcaacg cggatggtac tctgttgttt atagtccttg ctgctaacca cccttggtgc
300
tgggtgctgct ggagaggcat tgtacctgct catgcatata tgatatatat atgttgtaac
360
gttgtgaaag caaact
376

```

<210> 1136

<211> 67

<212> PRT

<213> Homo sapiens

<400> 1136

```

Asp Gln Ala Thr Gln Asp Asn Phe Glu Lys Gly Ser Ile Phe Pro Pro
      1           5           10           15
Phe Thr Ser Ile Arg Lys Ile Ser Ala His Ile Ala Ala Val Ala
      20           25           30
Ala Lys Ala Tyr Glu Leu Gly Leu Ala Thr Arg Leu Pro Pro Pro Ser
      35           40           45
Asp Leu Val Lys Tyr Ala Glu Asn Cys Met Tyr Thr Pro Val Tyr Arg

```


50
Asn Tyr Arg
65

55

60

<210> 1137
<211> 357
<212> DNA
<213> Homo sapiens

<400> 1137
acgcgtcgct ggaacccgaa gatgaagcgc ttcattctca ccgagcgcaa cggatatctac
60
atcattgacc tgcaccagtc gctgacctac attgataagg cgtacgcctt cgtcaaggag
120
actgtcgcca agggcgccca gattcttttc gtcggcacga agaagcaggc ccaggagtcc
180
atcgttgagc agggcactcg cggtggcatg ccctatgtca accagcgttg gcttggggga
240
atgctcacta atttccagac catctcgaag cgcattgccc ggctcaagga gctcgaggcc
300
atggactttg acaaggtttc cggtccggt ctcaccaaga aggagctgct tatgctc
357

<210> 1138
<211> 119
<212> PRT
<213> Homo sapiens

<400> 1138
Thr Arg Arg Trp Asn Pro Lys Met Lys Arg Phe Ile Phe Thr Glu Arg
1 5 10 15
Asn Gly Ile Tyr Ile Ile Asp Leu His Gln Ser Leu Thr Tyr Ile Asp
20 25 30
Lys Ala Tyr Ala Phe Val Lys Glu Thr Val Ala Lys Gly Gly Gln Ile
35 40 45
Leu Phe Val Gly Thr Lys Lys Gln Ala Gln Glu Ser Ile Val Glu Gln
50 55 60
Ala Thr Arg Val Gly Met Pro Tyr Val Asn Gln Arg Trp Leu Gly Gly
65 70 75 80
Met Leu Thr Asn Phe Gln Thr Ile Ser Lys Arg Ile Ala Arg Leu Lys
85 90 95
Glu Leu Glu Ala Met Asp Phe Asp Lys Val Ser Gly Ser Gly Leu Thr
100 105 110
Lys Lys Glu Leu Leu Met Leu
115

<210> 1139
<211> 456
<212> DNA
<213> Homo sapiens

<400> 1139
gtgcacaggt cgtctgaggc catgccgcgg acgatcgatc cgagtatggc ggcaccttca
60

ccaatcccgt aggacccgctc tcgtccagca tcgaccaagg cgctgttgag gcgttcggct
 120
 tcggtaatga actcgatgcg ctcaatatcc acgggggtag cgaaatcgta gatcttgccc
 180
 agactgaggc cttggaggag cgcggccgctc ggggggacgt ggctgcggc cgggcgttcc
 240
 ttgctctcaa ggacttcgctc gtcgcggctg acaaggaata cgtttggtg gtcgcctgca
 300
 atgcatgctc gagcgtggtg accatcgagg tgaaggacgg ttctggcata gaggtcatcg
 360
 tccacatcgg ccacagttag ttcgacgact cctgagtcga ctagatgacg cgccttctct
 420
 gccgcgtctt cgctgacgctc ggccaggacc gctagc
 456

<210> 1140

<211> 122

<212> PRT

<213> Homo sapiens

<400> 1140

Met	Trp	Thr	Met	Thr	Ser	Met	Pro	Lys	Pro	Ser	Phe	Thr	Ser	Met	Val
1				5					10					15	
Thr	Thr	Leu	Glu	His	Ala	Leu	Gln	Ala	Thr	Thr	Gln	Thr	Tyr	Ser	Leu
		20					25				30				
Ser	Ala	Ala	Thr	Thr	Lys	Ser	Leu	Arg	Ala	Arg	Asn	Ala	Arg	Pro	Gln
	35					40				45					
Ala	Thr	Ser	Pro	Arg	Arg	Pro	Arg	Ser	Ser	Lys	Ala	Ser	Val	Trp	Pro
	50					55				60					
Arg	Ser	Thr	Ile	Ser	Leu	Pro	Pro	Trp	Ile	Leu	Ser	Ala	Ser	Ser	Ser
65				70					75					80	
Leu	Pro	Lys	Pro	Asn	Ala	Ser	Thr	Ala	Pro	Trp	Ser	Met	Leu	Asp	Glu
			85					90					95		
Thr	Gly	Pro	Thr	Gly	Leu	Val	Lys	Val	Pro	Pro	Tyr	Ser	Asp	Arg	Ser
		100					105						110		
Ser	Ala	Ala	Trp	Pro	Gln	Thr	Thr	Cys	Ala						
		115					120								

<210> 1141

<211> 354

<212> DNA

<213> Homo sapiens

<400> 1141

ggcgccatgc tcggcgggct ggtgctgggt gtggccgaag cctttggcgc cgatatcttc
 60
 ggcgaccagt acaaggacgt ggtggcggtt ggctgttg ttctggtgct gttgttcgct
 120
 ccgaccggca ttctgggccc tccggaggtt gagaaagtat gagcagatat cttaaactcg
 180
 cgtttttcag cgccctgttg gtgtgggccc tggcctttcc ggtactcggc ctcaagctga
 240
 gcattgtcgg gatcaaccac gaagtgcatt gcaccggtcc cgtgaccttg accatcatcg
 300

ccctgtgctc ggtgccgatg ttccctgcgcg tgctgtttac ccagcaagtc ggtg
354

<210> 1142
<211> 53
<212> PRT
<213> Homo sapiens

<400> 1142
Gly Ala Met Leu Gly Gly Leu Val Leu Gly Val Ala Glu Ala Phe Gly
1 5 10 15
Ala Asp Ile Phe Gly Asp Gln Tyr Lys Asp Val Val Ala Phe Gly Leu
20 25 30
Leu Val Leu Val Leu Leu Phe Arg Pro Thr Gly Ile Leu Gly Arg Pro
35 40 45
Glu Val Glu Lys Val
50

<210> 1143
<211> 353
<212> DNA
<213> Homo sapiens

<400> 1143
acgcgttgca catccccag gaccatcaac cgcggcattg ccgcatagac ctggagatcc
60
catgcaacgt gaaatgaagt tcgaatcgat caaggcaaag gccaaaggcga tgctcatcgg
120
cgcagccgac gacacagcaa gcgcaggcgc gaccaaccga ggggtgggtca acagcgccgc
180
attcgaaatc ctggcccacg tggccgtcaa tgcccaacac tacgcgctct ccgagagacc
240
ggcgctggag gagttcgcca agagctttcca gccgcgcaac aaccaggact acgtggccgc
300
gatcgccaag aaggccgcga accacaccat gcatcccggc aggcagtcga ttt
353

<210> 1144
<211> 102
<212> PRT
<213> Homo sapiens

<400> 1144
Met His Gly Val Val Arg Gly Leu Leu Gly Asp Arg Gly His Val Val
1 5 10 15
Leu Val Val Ala Arg Leu Glu Ala Leu Gly Glu Leu Leu Gln Arg Arg
20 25 30
Ser Leu Gly Glu Arg Val Val Leu Gly Ile Asp Gly His Val Gly Gln
35 40 45
Asp Phe Glu Cys Gly Ala Val Glu Pro Pro Ser Val Gly Arg Ala Cys
50 55 60
Ala Cys Cys Val Val Gly Cys Ala Asp Glu His Arg Leu Gly Leu Cys
65 70 75 80
Leu Asp Arg Phe Glu Leu His Phe Thr Leu His Gly Ile Ser Arg Ser

Met Arg Gln Cys Arg Gly
100

85

90

95

<210> 1145
<211> 360
<212> DNA
<213> Homo sapiens

<400> 1145
gtcttcggcg ggctcggcct gttctattgc gtcatgaccc cgggtgtactg gttctcggcc
60
catgaagtgg ccggcacctg ggtactcggg ctgctcggcg cgatggctct gatgggtgtt
120
ttctacgtcc aggtcatcgc caagaagatc aatcctcgac cctccgacga gaaggacgcc
180
gaggtgatcg acggggctgg tccggtcggg ttcttcccgc cacagagtat ctggccgttc
240
tggtgcgcgc tcgttgtcgc catcatgtgc ctgggccga tcttcggctg gtggatctct
300
ctgctcgggc tgggcattgt tatctgggcc gcctcgggtt gggcttttga gtactaccgc
360

<210> 1146
<211> 120
<212> PRT
<213> Homo sapiens

<400> 1146
Val Phe Gly Gly Leu Gly Leu Phe Tyr Cys Val Met Thr Pro Val Tyr
1 5 10 15
Trp Phe Ser Ala His Glu Val Ala Gly Thr Trp Val Leu Gly Leu Ser
20 25 30
Ala Ala Met Ala Leu Met Val Phe Phe Tyr Val Gln Val Ile Ala Lys
35 40 45
Lys Ile Asn Pro Arg Pro Ser Asp Glu Lys Asp Ala Glu Val Ile Asp
50 55 60
Gly Ala Gly Pro Val Gly Phe Phe Pro Pro Gln Ser Ile Trp Pro Phe
65 70 75 80
Trp Cys Ala Leu Val Val Ala Ile Met Cys Leu Gly Pro Ile Phe Gly
85 90 95
Trp Trp Ile Ser Leu Leu Gly Leu Gly Ile Val Ile Trp Ala Ala Ser
100 105 110
Gly Trp Ala Phe Glu Tyr Tyr Arg
115 120

<210> 1147
<211> 409
<212> DNA
<213> Homo sapiens

<400> 1147
tgtacattgg ctatgcagtc tggcctcctg aagggttatga tagtagccaa aaatatagaa
60

gccaaaaagg catccacctt cttcatcaat ccagaattga tcatgctcat gcctgtgggt
 120
 ggatcactat gtgctctcca aattgggagg ggaagtctac tctcctctct cctctctctc
 180
 ccaccttccc ctctctcttc tctcctttct attcccaggg cagtgggaaca tgatgaggtt
 240
 cttttccctt catggatata ctctttctgc cctccacata aaggggcatt gatggatctt
 300
 caagaatggg atgcctttcc ctagaaaggc taaatattca tgaggctgaa tgtgaggatc
 360
 cagagtacac tgaaatataa ctggtcatca gtacacatag aatctgatn
 409

<210> 1148

<211> 103

<212> PRT

<213> Homo sapiens

<400> 1148

Met	Gln	Ser	Gly	Leu	Leu	Lys	Val	Met	Ile	Val	Ala	Lys	Asn	Ile	Glu
1				5				10					15		
Ala	Lys	Lys	Ala	Ser	Thr	Phe	Phe	Ile	Asn	Pro	Glu	Leu	Ile	Met	Leu
			20					25					30		
Met	Pro	Val	Gly	Gly	Ser	Leu	Cys	Ala	Leu	Gln	Ile	Gly	Arg	Gly	Ser
		35					40					45			
Leu	Leu	Ser	Ser	Leu	Leu	Ser	Leu	Pro	Pro	Ser	Pro	Leu	Ser	Ser	Leu
	50					55					60				
Leu	Ser	Ile	Pro	Arg	Ala	Val	Glu	His	Asp	Glu	Val	Leu	Phe	Pro	Ser
65				70					75					80	
Trp	Ile	Ser	Ser	Phe	Cys	Pro	Pro	His	Lys	Gly	Ala	Leu	Met	Asp	Leu
				85					90					95	
Gln	Glu	Trp	Asp	Ala	Phe	Pro									
							100								

<210> 1149

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1149

gtcgacttct gcatggaaaa acgcgatctg gtgattgagc acgttgcgga gatgtacggc
 60
 cgtgaggcgg tatcgagat cattaccttc ggtaccatgg cggcgaaagc gggtattcgt
 120
 gacgtgggce gtgtactggg tcacccgtat ggcttcgctc atcgcatctc caagctggtg
 180
 ccgcccgatc cgggcatgac gctggaaaaa gcctttgccg ccgaaccgca gttgccggaa
 240
 atctacgagg ccgatgagga agtcaaagcg ctgatcgaca tggcgcgcaa gctgggaagg
 300
 gtgacgcgg
 309

<210> 1150

<211> 103
 <212> PRT
 <213> Homo sapiens

<400> 1150
 Val Asp Phe Cys Met Glu Lys Arg Asp Leu Val Ile Glu His Val Ala
 1 5 10 15
 Glu Met Tyr Gly Arg Glu Ala Val Ser Gln Ile Ile Thr Phe Gly Thr
 20 25 30
 Met Ala Ala Lys Ala Val Ile Arg Asp Val Gly Arg Val Leu Gly His
 35 40 45
 Pro Tyr Gly Phe Val Asp Arg Ile Ser Lys Leu Val Pro Pro Asp Pro
 50 55 60
 Gly Met Thr Leu Glu Lys Ala Phe Ala Ala Glu Pro Gln Leu Pro Glu
 65 70 75 80
 Ile Tyr Glu Ala Asp Glu Glu Val Lys Ala Leu Ile Asp Met Ala Arg
 85 90 95
 Lys Leu Gly Arg Val Thr Arg
 100

<210> 1151
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 1151
 gcgcgcattt ttgcaaccc aagcgacgtc attatggccg agtcgccggc ttatgtcggg
 60
 gcgctcaata ccttcgctc gtaccaaact gaggtcattc acgtcgacat ggacgacagc
 120
 ggggttggtc cggaatccct gcgtgagaaa gtgactgcag cgcgtaaga cggcaagtcg
 180
 gtgaagtcc ttacacggt tcctaactac tcgaaccggt cgggaatctc gcaatccacc
 240
 gagegtcgcc gggagatcct agcgggtggct gacgagctgg atctgttggt gggtgaggac
 300
 aaccgtagc gggtactcaa cctcgatggt gatccactgc cgacgttgaa gtcgatggat
 360

<210> 1152
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 1152
 Ala Arg Ile Phe Cys Asn Pro Ser Asp Val Ile Met Ala Glu Ser Pro
 1 5 10 15
 Ala Tyr Val Gly Ala Leu Asn Thr Phe Ala Ser Tyr Gln Thr Glu Val
 20 25 30
 Ile His Val Asp Met Asp Asp Ser Gly Leu Val Pro Glu Ser Leu Arg
 35 40 45
 Glu Lys Val Thr Ala Ala Arg Gln Asp Gly Lys Ser Val Lys Phe Leu
 50 55 60
 Tyr Thr Val Pro Asn Tyr Ser Asn Pro Ser Gly Ile Ser Gln Ser Thr

65					70					75					80
Glu	Arg	Arg	Arg	Glu	Ile	Leu	Ala	Val	Ala	Asp	Glu	Leu	Asp	Leu	Leu
				85					90					95	
Val	Val	Glu	Asp	Asn	Pro	Tyr	Gly	Leu	Leu	Asn	Leu	Asp	Gly	Asp	Pro
			100					105					110		
Leu	Pro	Thr	Leu	Lys	Ser	Met	Asp								
		115					120								

```
<210> 1153
<211> 416
<212> DNA
<213> Homo sapiens
```

```
<400> 1153
gcgtggattc gtcctggcgg cgtcgctacc gacctgccc agaccgggct cgaccagttg
60
cgtgacctca tcaagcggat ggaaaagtac ctccccgaga tcggtcagtt ctgcaatgag
120
aatccgatct ttaaggcccg cactcagggc attggttacg ctgatctgtc tacctgtatg
180
gccctgggag ttactgggtc tgctctgcgc gctaccggcc tgccgtggga cctgcgcaag
240
accagccct attgcgatta cgacacgtat gatttcgacg tcgccacctg ggataacctgt
300
gactgttacg ggcgtttccg catccgcctg gaagagatgg accagtccgt gcgcattctc
360
aagcaatgcc tcaaacgcct cgaggacacc cagggtgacc gtaatatggg cgagga
416
```

```
<210> 1154
<211> 138
<212> PRT
<213> Homo sapiens
```

```

<400> 1154
Ala Trp Ile Arg Pro Gly Gly Val Ala Thr Asp Leu Pro Glu Thr Gly
 1              5              10              15
Leu Asp Gln Leu Arg Asp Leu Ile Lys Arg Met Glu Lys Tyr Leu Pro
      20              25              30
Glu Ile Gly Gln Phe Cys Asn Glu Asn Pro Ile Phe Lys Ala Arg Thr
      35              40              45
Gln Gly Ile Gly Tyr Ala Asp Leu Ser Thr Cys Met Ala Leu Gly Val
      50              55              60
Thr Gly Pro Ala Leu Arg Ala Thr Gly Leu Pro Trp Asp Leu Arg Lys
65              70              75              80
Thr Gln Pro Tyr Cys Asp Tyr Asp Thr Tyr Asp Phe Asp Val Ala Thr
      85              90              95
Trp Asp Thr Cys Asp Cys Tyr Gly Arg Phe Arg Ile Arg Leu Glu Glu
      100              105              110
Met Asp Gln Ser Val Arg Ile Leu Lys Gln Cys Leu Lys Arg Leu Glu
      115              120              125
Asp Thr Gln Gly Asp Arg Asn Met Val Glu
      130              135

```


<210> 1155
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 1155
 ctttaagttat tttggtcttt gcctctctcc tcaggttggtg aagattacag aaatctggga
 60
 tggcttatgg gacgcttctc agccctaagt aggaaaacag cagtgaaaat ggcaacccaa
 120
 acatcacgca ggactggggg ttttggggaa acagctcact ttagagcagt gcagtgtaga
 180
 gctttccgtc ttctaccagg gtccaccttt aacactgttt atctgaaaat tttccccctg
 240
 gcttactcgc ttgcagctgc ccactttgca gaaagatggc gctctgatct ctacgctccc
 300
 tgttccttca gggactccat agtatttttt ttcacgcgt
 339

<210> 1156
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 1156
 Met Gly Arg Phe Ser Ala Leu Ser Arg Lys Thr Ala Val Lys Met Ala
 1 5 10 15
 Thr Lys Thr Ser Arg Arg Thr Gly Gly Phe Gly Glu Thr Ala His Phe
 20 25 30
 Arg Ala Val Gln Cys Arg Ala Phe Arg Leu Leu Pro Gly Ser Thr Phe
 35 40 45
 Asn Thr Val Tyr Leu Lys Ile Phe Pro Leu Ala Tyr Ser Leu Ala Ala
 50 55 60
 Ala His Phe Ala Glu Arg Trp Arg Ser Asp Leu Tyr Ala Pro Cys Ser
 65 70 75 80
 Phe Arg Asp Ser Ile Val Phe Phe Phe Thr Arg
 85 90

<210> 1157
 <211> 426
 <212> DNA
 <213> Homo sapiens

<400> 1157
 nnacagcctc tctccgaccc ggcggcggtt gcacacgtcc ccgtctgagg agtattcgtg
 60
 ctggcaaaac tcgtgacccg acacctgagg gcctatcggg tgcacgttgc cgtcatcatc
 120
 gttatgcagg tttgcgcca aatcgcgggc ctgaccttgc caaccatcaa cgcagacatc
 180
 atcaacaagg gcgtcgtgac agcggatacc ggatatgtca ccacccactc cctcttcatg
 240
 ctggcggtcg ctttagggca ggccatctgc caggtcattg cggtttatct cgccgctcag
 300

gtggcgatgg gaatggggccg tgacgttcgc gacgccatct tcacccgcac ccttgacttc
 360
 tcggccccggg agatcaacaa attcggagca ccatcactca ttacccggac taccaacgac
 420
 gtccag
 426

<210> 1158
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 1158
 Val Leu Ala Lys Leu Val Thr Arg His Leu Arg Ala Tyr Arg Leu His
 1 5 10 15
 Val Ala Val Ile Ile Val Met Gln Val Cys Ala Gln Ile Ala Ala Leu
 20 25 30
 Thr Leu Pro Thr Ile Asn Ala Asp Ile Ile Asn Lys Gly Val Val Thr
 35 40 45
 Ala Asp Thr Gly Tyr Val Thr His Ser Leu Phe Met Leu Ala Val
 50 55 60
 Ala Leu Gly Gln Ala Ile Cys Gln Val Ile Ala Val Tyr Leu Ala Ala
 65 70 75 80
 Gln Val Ala Met Gly Met Gly Arg Asp Val Arg Asp Ala Ile Phe Thr
 85 90 95
 Arg Thr Leu Asp Phe Ser Ala Arg Glu Ile Asn Lys Phe Gly Ala Pro
 100 105 110
 Ser Leu Ile Thr Arg Thr Thr Asn Asp Val Gln
 115 120

<210> 1159
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 1159
 tctctccgac cgcgcctggg gcccggtggg gtcctgcggg gacgcgggag aggacggcgc
 60
 ggacgaggca ggagcaggcc gggctctcgc catgggtcac tgcgcctct gccacgggaa
 120
 gttttcctcg agaagcctgc gcagcatctc cgagagggcg cctggagcga gcatggagag
 180
 gccatccgca gaggagcgcg tgctcgtacg ggacttccag cgcctgcttg gtgtggctgt
 240
 ccgccaggac cccaccttgt ctccgtttgt ctgcaagagc tgccacgccc agttctacca
 300
 gtgccacagc cttctcaagt ccttcctgca gagggtcaac gcttccccgg ctggtcgccc
 360
 gaagccttgt gcaaaggctc gtgcccagcc cccaacaggg gcagaggagg gagcgtgtct
 420
 ggtggatctg atca
 434

<210> 1160

<211> 114
 <212> PRT
 <213> Homo sapiens

<400> 1160
 Met Gly His Cys Arg Leu Cys His Gly Lys Phe Ser Ser Arg Ser Leu
 1 5 10 15
 Arg Ser Ile Ser Glu Arg Ala Pro Gly Ala Ser Met Glu Arg Pro Ser
 20 25 30
 Ala Glu Glu Arg Val Leu Val Arg Asp Phe Gln Arg Leu Leu Gly Val
 35 40 45
 Ala Val Arg Gln Asp Pro Thr Leu Ser Pro Phe Val Cys Lys Ser Cys
 50 55 60
 His Ala Gln Phe Tyr Gln Cys His Ser Leu Leu Lys Ser Phe Leu Gln
 65 70 75 80
 Arg Val Asn Ala Ser Pro Ala Gly Arg Arg Lys Pro Cys Ala Lys Val
 85 90 95
 Gly Ala Gln Pro Pro Thr Gly Ala Glu Glu Gly Ala Cys Leu Val Asp
 100 105 110
 Leu Ile

<210> 1161
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 1161
 ctgcacacac accaggccac gcccacgagg acggccagtc agcatgcagc caatacaccc
 60
 acagaggggat ggggagcagc cctcagtgcc agctccaaca ggcccactgc aggtcctgtc
 120
 actgcaccca aggagctgcc ttccatttca cctgacattt ccactaaggg cccagcgttt
 180
 atcattccag aagagcagca ggcagaacct tcacctccca agagctgcaa gtgcgctgtg
 240
 gcaggaaaag aagatctggc gtctgaagtc agctcctgct ctccaggaaa agagggacga
 300
 tgacatagga cttgagcaaa atgagagccc cgtgatggga gagaacacct gatca
 355

<210> 1162
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 1162
 Met Gln Pro Ile His Pro Gln Arg Asp Gly Glu Gln Pro Ser Val Pro
 1 5 10 15
 Ala Pro Thr Gly Pro Leu Gln Val Leu Ser Leu His Pro Arg Ser Cys
 20 25 30
 Leu Pro Phe His Leu Thr Phe Pro Leu Arg Ala Gln Arg Leu Ser Phe
 35 40 45
 Gln Lys Ser Ser Arg Gln Asn Leu His Leu Pro Arg Ala Ala Ser Ala

50 55 60
 Leu Trp Gln Glu Lys Lys Ile Trp Arg Leu Lys Ser Ala Pro Ala Leu
 65 70 75 80
 Gln Glu Lys Arg Asp Asp Asp Ile Gly Leu Glu Gln Asn Glu Ser Pro
 85 90 95
 Val Met Gly Glu Asn Thr
 100

<210> 1163
 <211> 466
 <212> DNA
 <213> Homo sapiens

<400> 1163
 ngcgcgccag gaagcgggag gtcagctgta caccagggt aatagaactt ctaccctcag
 60
 aggagtcaaa gagaaggcag aactatggca ggaaagctcc ggaagtccca catccctgga
 120
 gtgagcatct ggcagctggg ggaggagatc cctgaaggct gcagcacgcc ggactttgag
 180
 cagaagcccg tcacctcggc tctgccagag gggaaaaatg ctgtcttttcg ggctgtggtc
 240
 tgtggggagc ccaggcccg ggtgcgttgg cagaactcca aaggtgacct cagtgattcc
 300
 agcaagtaca agatctctc cagccctggc agcaaggagc acgtgctgca gatcaacaag
 360
 ctgacaggcg aggacacgga tctgtaccac tgcacagcag taaatgcgta cggagaggcc
 420
 gcttgctcag tgagactcac cgtcatcgaa gttggctttc ggaaga
 466

<210> 1164
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 1164
 Met Ala Gly Lys Leu Arg Lys Ser His Ile Pro Gly Val Ser Ile Trp
 1 5 10 15
 Gln Leu Val Glu Glu Ile Pro Glu Gly Cys Ser Thr Pro Asp Phe Glu
 20 25 30
 Gln Lys Pro Val Thr Ser Ala Leu Pro Glu Gly Lys Asn Ala Val Phe
 35 40 45
 Arg Ala Val Val Cys Gly Glu Pro Arg Pro Glu Val Arg Trp Gln Asn
 50 55 60
 Ser Lys Gly Asp Leu Ser Asp Ser Ser Lys Tyr Lys Ile Ser Ser Ser
 65 70 75 80
 Pro Gly Ser Lys Glu His Val Leu Gln Ile Asn Lys Leu Thr Gly Glu
 85 90 95
 Asp Thr Asp Leu Tyr His Cys Thr Ala Val Asn Ala Tyr Gly Glu Ala
 100 105 110
 Ala Cys Ser Val Arg Leu Thr Val Ile Glu Val Gly Phe Arg Lys
 115 120 125

<210> 1165
 <211> 414
 <212> DNA
 <213> Homo sapiens

<400> 1165
 tgggtggttc cggacacana aaatcacgtg ttgaaccgaa tttcaggcat ggtgaaaggc
 60
 tgcttttagta aagtccttgt tgagccgcgt ctgctcaagc tcaacttgac nattatgtgt
 120
 ctgcacattc tgctgatgtc cacgttcgtg gccctgcccg gtcagttggc tgcagcagga
 180
 ttccccgccg ctgaacactg gaaagtgtat ctggtgacga tgctcatctc cttcgtctcc
 240
 gttgtccctt tcattatcta tgcagaagtg aaacgccgca tgaagcgcgt attcctgacg
 300
 tgtgttgccg tgctgttgat tgccgaaatc gtactatggg gtcctcggtcc acatttctgg
 360
 gaactgggtca tcggcgtaga gcttttcttc ctgccttta atctcatgga agcc
 414

<210> 1166
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 1166
 Trp Val Val Pro Asp Thr Xaa Asn His Val Leu Asn Arg Ile Ser Gly
 1 5 10 15
 Met Val Lys Gly Cys Phe Ser Lys Val Leu Val Glu Pro Arg Leu Leu
 20 25 30
 Lys Leu Asn Leu Thr Ile Met Cys Leu His Ile Leu Leu Met Ser Thr
 35 40 45
 Phe Val Ala Leu Pro Gly Gln Leu Ala Ala Ala Gly Phe Pro Ala Ala
 50 55 60
 Glu His Trp Lys Val Tyr Leu Val Thr Met Leu Ile Ser Phe Val Ser
 65 70 75 80
 Val Val Pro Phe Ile Ile Tyr Ala Glu Val Lys Arg Arg Met Lys Arg
 85 90 95
 Val Phe Leu Thr Cys Val Ala Leu Leu Leu Ile Ala Glu Ile Val Leu
 100 105 110
 Trp Gly Ser Gly Pro His Phe Trp Glu Leu Val Ile Gly Val Gln Leu
 115 120 125
 Phe Phe Leu Ala Phe Asn Leu Met Glu Ala
 130 135

<210> 1167
 <211> 464
 <212> DNA
 <213> Homo sapiens

<400> 1167
 gtcgaccccc tgggcaagag tcgcgggccc tgacgataac ttcacccccg cggccttgag
 60

ctgttgggac cggctggcta aggcctgggc accggtagcg gcctggtgga taccctcatg
 120
 tagccgggtg acctgcctga ccatcttcgg caaaccagtg cgcagttgtg tggatgaactc
 180
 attgacccct cgagacagtc gtgaggaacc gtcagcaagt tcgtcgatgc cgctcgatgc
 240
 gctcttgcca gagttcggat ccttgatcgc catcgcttg acggccaccc ccgacccagc
 300
 ccgcacgccc agggcgtagc catcggtcat cgcgtcgcgg acgatgggta ccaggtcgtg
 360
 gcattcctgc gcggtgtggc ttcgcacgca tcgacgcagg aagtcagcct cgtcccgga
 420
 cagggttcc ttactaagtt ccgcggtttt ctttcccgac gcgt
 464

<210> 1168

<211> 110

<212> PRT

<213> Homo sapiens

<400> 1168

Met	Thr	Asp	Gly	Tyr	Ala	Leu	Gly	Val	Arg	Ala	Gly	Ser	Gly	Val	Ala
1				5					10					15	
Val	Lys	Ala	Met	Ala	Ile	Lys	Asp	Pro	Asn	Ser	Gly	Lys	Ser	Ile	Asp
		20					25					30			
Asp	Gly	Ile	Asp	Glu	Leu	Ala	Asp	Gly	Ser	Ser	Arg	Leu	Ser	Arg	Gly
		35				40					45				
Val	Asn	Glu	Phe	Thr	Thr	Gln	Leu	Arg	Thr	Gly	Leu	Pro	Lys	Met	Val
	50					55				60					
Arg	Gln	Val	Thr	Arg	Leu	His	Glu	Gly	Ile	His	Gln	Ala	Ala	Thr	Gly
65				70				75				80			
Ala	Gln	Ala	Leu	Ala	Ser	Arg	Ser	Gln	Gln	Leu	Lys	Ala	Gly	Gly	Val
			85					90					95		
Lys	Leu	Ser	Ser	Gly	Ala	Ala	Thr	Leu	Ala	His	Gly	Val	Asp		
		100					105					110			

<210> 1169

<211> 486

<212> DNA

<213> Homo sapiens

<400> 1169

nacgcgtgaa gggagcagaa cggacaccag ttactagtgg ctctggtcgg ggacagcctc
 60
 ctagagcctt tctggccaat gggaaacagga atagccccggg gctttctagc tgctatggac
 120
 tctgcctgga tgggtccgaag ttggtctcta ggaacgagcc ctttggaagt gctggcagag
 180
 agggaaagta ttacaggtt gctgcctcag accaccctg agaatgtgag taagaacttc
 240
 agccagtaca gtatcgaccc tgcactcgg taccaccaata tcaacgtcaa cttcctccgg
 300
 ccaagccagg tgcgccattt atatgatact ggcgaaacaa aagatattca cctggaaatg
 360

gagagcctgg tgaattcccg aaccaccccc aaattgactc gcaatgagtc tgtagctcgt
 420
 tcaagcaaac tgctgggttg gtgccagagg cagacagatg gctatgcagg ggtaaactgtg
 480
 acagat
 486

<210> 1170

<211> 159

<212> PRT

<213> Homo sapiens

<400> 1170

Arg	Glu	Gln	Asn	Gly	His	Gln	Leu	Leu	Val	Ala	Leu	Val	Gly	Asp	Ser
1				5					10					15	
Leu	Leu	Glu	Pro	Phe	Trp	Pro	Met	Gly	Thr	Gly	Ile	Ala	Arg	Gly	Phe
			20					25					30		
Leu	Ala	Ala	Met	Asp	Ser	Ala	Trp	Met	Val	Arg	Ser	Trp	Ser	Leu	Gly
		35					40					45			
Thr	Ser	Pro	Leu	Glu	Val	Leu	Ala	Glu	Arg	Glu	Ser	Ile	Tyr	Arg	Leu
	50					55					60				
Leu	Pro	Gln	Thr	Thr	Pro	Glu	Asn	Val	Ser	Lys	Asn	Phe	Ser	Gln	Tyr
65					70				75					80	
Ser	Ile	Asp	Pro	Val	Thr	Arg	Tyr	Pro	Asn	Ile	Asn	Val	Asn	Phe	Leu
				85				90						95	
Arg	Pro	Ser	Gln	Val	Arg	His	Leu	Tyr	Asp	Thr	Gly	Glu	Thr	Lys	Asp
			100					105					110		
Ile	His	Leu	Glu	Met	Glu	Ser	Leu	Val	Asn	Ser	Arg	Thr	Thr	Pro	Lys
		115					120					125			
Leu	Thr	Arg	Asn	Glu	Ser	Val	Ala	Arg	Ser	Ser	Lys	Leu	Leu	Gly	Trp
	130					135					140				
Cys	Gln	Arg	Gln	Thr	Asp	Gly	Tyr	Ala	Gly	Val	Asn	Val	Thr	Asp	
145					150						155				

<210> 1171

<211> 429

<212> DNA

<213> Homo sapiens

<400> 1171

acgcgttcaa caaagcacag aaccggagat gcagtgggag ccgagagcag gaagcgcgga
 60
 ggcagcgcca ggtgctggcg ctgcccagagg ccccggtgcca agtggggccc atagcagccg
 120
 actcgctaga ccctcccaaa acgcacacca cgcgcgacca ggaccgagag gcccgcacgg
 180
 ccctgctagg ccacaaacac tccactgtct ccagggtaaa agacaaacac agcctcgctt
 240
 gtccctccaa gactacaacc tctgtctgat gaaaaacaaa cgacccagag aggaggcagc
 300
 tgccgggaca ctgcaggctg ggcccggcgc gcccttggag ggcagggtcaa aatccccgaa
 360
 caggcacagt gttcaggctg attgactgtc ccaggccagg gcggcctcaa ctgccagagc
 420

acctcctac
429

<210> 1172
<211> 118
<212> PRT
<213> Homo sapiens

<400> 1172
Met Gln Trp Glu Pro Arg Ala Gly Ser Ala Glu Ala Ala Pro Gly Ala
1 5 10 15
Gly Ala Ala Arg Gly Pro Val Pro Ser Gly Ala His Ser Ser Arg Leu
20 25 30
Ala Arg Pro Ser Gln Asn Ala His His Ala Arg Pro Gly Pro Arg Gly
35 40 45
Pro His Gly Pro Ala Arg Pro Gln Thr Leu His Cys Leu Gln Gly Lys
50 55 60
Arg Gln Thr Gln Pro Arg Leu Ser Leu Gln Glu Tyr Asn Leu Cys Leu
65 70 75 80
Met Lys Asn Lys Arg Pro Arg Glu Glu Ala Ala Gly Thr Leu Gln
85 90 95
Ala Gly Pro Ala Ala Pro Leu Glu Gly Arg Ser Lys Ser Arg Asn Arg
100 105 110
His Ser Val Gln Ala Asp
115

<210> 1173
<211> 435
<212> DNA
<213> Homo sapiens

<400> 1173
cgcgatcaatg acgacggcga gcattctgcc gagcaggtga tgcgagccac ccgcggtgct
60
ggacttgagg cggaggccaa gcgtcgcatc atcttgaggta cctatgcctt gtcggctggg
120
tactatgacg cctactacgg ctcggtctcag aaagtccgta ccctcatcca acgcgacttc
180
gagaaagcat ggcagatgtg cgatgtgctc gtgtcaccgg ccacgccaac gactgccttc
240
cggctgggtg agcgtactgc tgacccgatg gcgatgtacc gtcctgatct atgcacggtc
300
ccggccaata tggccggaag tcccgcagga tctttcccga tcggtctatc agagaccgac
360
ggcatgcccc tcggcatgca ggtgatggcg ccaatcatgg cggacgatcg aatctaccga
420
gttggggccg ctcta
435

<210> 1174
<211> 145
<212> PRT
<213> Homo sapiens

<400> 1174

Arg Val Asn Asp Asp Gly Glu His Ser Ala Glu Gln Val Met Arg Ala
 1 5 10 15
 Thr Arg Gly Ala Gly Leu Gly Ala Glu Ala Lys Arg Arg Ile Ile Leu
 20 25 30
 Gly Thr Tyr Ala Leu Ser Ala Gly Tyr Tyr Asp Ala Tyr Tyr Gly Ser
 35 40 45
 Ala Gln Lys Val Arg Thr Leu Ile Gln Arg Asp Phe Glu Lys Ala Trp
 50 55 60
 Gln Met Cys Asp Val Leu Val Ser Pro Ala Thr Pro Thr Thr Ala Phe
 65 70 75 80
 Arg Leu Gly Glu Arg Thr Ala Asp Pro Met Ala Met Tyr Arg Ser Asp
 85 90 95
 Leu Cys Thr Val Pro Ala Asn Met Ala Gly Ser Pro Ala Gly Ser Phe
 100 105 110
 Pro Ile Gly Leu Ser Glu Thr Asp Gly Met Pro Val Gly Met Gln Val
 115 120 125
 Met Ala Pro Ile Met Ala Asp Asp Arg Ile Tyr Arg Val Gly Ala Ala
 130 135 140
 Leu
 145

<210> 1175

<211> 729

<212> DNA

<213> Homo sapiens

<400> 1175

gatcgactg caatccaccc acatctactt gatatgaaaa ttgggtcaagg caaatatgag
 60
 caggggttct ttccaaagtt acagtcgat gtcttggcaa caggaccaac cagtaacaat
 120
 cgctgggtaa gtcggagtgc cactgcacag cgcaggaaa gacgccttcg ccagcattct
 180
 gagcatgttg ggctggacaa cgacttgagg gagaaatata tgcaagaggc acgaagttaa
 240
 ggaaaaaacc tgaggcaacc caaactgtca gacctctctc ctgcagttat tgcacagacc
 300
 aactgtaaat tcgtagaagg cttattaaaa gaatgtagaa ataagacaaa gcgcatgttg
 360
 gtggagaaga tgggacatga agcgggtggaa cttggccatg gagaagcaaa catcaccggc
 420
 ctggaggaga acaccttgat cgccagcctt tgtgacctgc tggagaggat atggagccat
 480
 ggcttgcagg tcaagcaggg gaagtcggtt ttgtggtcac atttaattcc ttttcaggac
 540
 agagaagaga accaagagcc ccttgcagaa tcaccagttg ccctcggacc agaaagaaaa
 600
 aaatctgact caggagttat gttgccaacg ctcagggtct ctcttattca ggacatgagg
 660
 catattcaaa acatgagtga gatcaagact gatgttggac gagctcgggc gtggataaga
 720
 ctgtctcta
 729

<210> 1176
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 1176
 Asp Arg Thr Ala Ile His Pro His Leu Leu Asp Met Lys Ile Gly Gln
 1 5 10 15
 Gly Lys Tyr Glu Gln Gly Phe Phe Pro Lys Leu Gln Ser Asp Val Leu
 20 25 30
 Ala Thr Gly Pro Thr Ser Asn Asn Arg Trp Val Ser Arg Ser Ala Thr
 35 40 45
 Ala Gln Arg Arg Lys Gly Arg Leu Arg Gln His Ser Glu His Val Gly
 50 55 60
 Leu Asp Asn Asp Leu Arg Glu Lys Tyr Met Gln Glu Ala Arg Ser Leu
 65 70 75 80
 Gly Lys Asn Leu Arg Gln Pro Lys Leu Ser Asp Leu Ser Pro Ala Val
 85 90 95
 Ile Ala Gln Thr Asn Cys Lys Phe Val Glu Gly Leu Leu Lys Glu Cys
 100 105 110
 Arg Asn Lys Thr Lys Arg Met Leu Val Glu Lys Met Gly His Glu Ala
 115 120 125
 Val Glu Leu Gly His Gly Glu Ala Asn Ile Thr Gly Leu Glu Glu Asn
 130 135 140
 Thr Leu Ile Ala Ser Leu Cys Asp Leu Leu Glu Arg Ile Trp Ser His
 145 150 155 160
 Gly Leu Gln Val Lys Gln Gly Lys Ser Val Leu Trp Ser His Leu Ile
 165 170 175
 Pro Phe Gln Asp Arg Glu Glu Asn Gln Glu Pro Leu Ala Glu Ser Pro
 180 185 190
 Val Ala Leu Gly Pro Glu Arg Lys Lys Ser Asp Ser Gly Val Met Leu
 195 200 205
 Pro Thr Leu Arg Val Ser Leu Ile Gln Asp Met Arg His Ile Gln Asn
 210 215 220
 Met Ser Glu Ile Lys Thr Asp Val Gly Arg Ala Arg Ala Trp Ile Arg
 225 230 235 240
 Leu Ser Leu

<210> 1177
 <211> 581
 <212> DNA
 <213> Homo sapiens

<400> 1177
 acgcgtgatg agttgcgcga gaccagcaac tgcagccgaa cacagttttc ttgtgtaccc
 60
 cgctgcacag ctgcgagagg tgggcattgc cgagtgaggc aacgatgtct aaggcggaaa
 120
 gctcatcctc ggcagacggg aagactttgt cgtcggggat gttgtcaatg agagcgggga
 180
 cgtcgatctc ggtactgccc atggcgctcat gaaggatcgc gcgatacggg gcgacgaccc
 240

cgatgagggc gtcgtcgaat ccagcgatga tcgatacctc tctcggtagc acgtccgtgg
 300
 ccaacaggtg gtcgacttgg gcgggggcta gccatgtaat tgttccgagc acatggaggg
 360
 tggctgccag gaggcggatg gccggttctg gggcatcttt ggagatcttc agccggacat
 420
 cagtgggcag tccggccggg acttggcaga gggcctgggc gggatgggag cgctgggcga
 480
 cgacgaaacg ccccgacgcc gtaacgccgt gggcttggag atcgcaggtc cacttctctg
 540
 ggctttcacc ggcagagatc atggtgtgga ccaccattgt g
 581

<210> 1178

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1178

Met	Val	Val	His	Thr	Met	Ile	Ser	Ala	Gly	Glu	Ser	Pro	Glu	Lys	Trp
1				5					10					15	
Thr	Cys	Asp	Leu	Gln	Ala	His	Gly	Val	Thr	Ala	Ser	Gly	Arg	Phe	Val
			20					25					30		
Val	Ala	Gln	Arg	Ser	His	Pro	Ala	Gln	Ala	Leu	Cys	Gln	Val	Pro	Ala
			35					40					45		
Gly	Leu	Pro	Thr	Asp	Val	Arg	Leu	Lys	Ile	Ser	Lys	Asp	Ala	Pro	Glu
			50					55				60			
Pro	Ala	Ile	Arg	Leu	Leu	Ala	Ala	Thr	Leu	His	Val	Leu	Gly	Thr	Ile
								70				75			80
Thr	Trp	Leu	Ala	Pro	Ala	Gln	Val	Asp	His	Leu	Leu	Ala	Thr	Asp	Val
								85				90			95
Leu	Pro	Arg	Glu	Val	Ser	Ile	Ile	Ala	Gly	Phe	Asp	Asp	Ala	Leu	Ile
								100				105			110
Gly	Val	Val	Ala	Pro	Tyr	Arg	Ala	Ile	Leu	His	Asp	Ala	Met	Gly	Ser
								115				120			125
Thr	Glu	Ile	Asp	Val	Pro	Ala	Leu	Ile	Asp	Asn	Ile	Pro	Asp	Asp	Lys
								130				135			140
Val	Phe	Pro	Ser	Ala	Glu	Asp	Glu	Leu	Ser	Ala	Leu	Asp	Ile	Val	Ala
								145				150			155
Ser	Leu	Gly	Asn	Ala	His	Leu	Ser	Gln	Leu	Cys	Asp	Gly	Val	His	Lys
								165				170			175
Lys	Thr	Val	Phe	Gly	Cys	Ser	Cys	Trp	Ser	Arg	Ala	Thr	His	His	Ala
								180				185			190

<210> 1179

<211> 597

<212> DNA

<213> Homo sapiens

<400> 1179

gtgcactttc tggcttctaa ctgtggcccc agccctgact ccttgagggtg ctctgtgct
 60
 gattggggct tctggacatg ctgccacaag atgtctggaa actccagggg gcacctgccg
 120

agaccctgcc ctgggaacgg ccggaagaat cccaaaacat gagattccgg tgcagctgag
180
ccccgccaat tcattgtctc tttcagtcctt ttctgaaggc tgcatttggc aatgtgaccc
240
tcgggggtggg gaaggcatca gaggaataca ggctatggga cgccagaggc agcgtcctgg
300
ggacaaagcc cacttcttcc catgcccagg gcttcctcat ggaccagca tgggtggacgt
360
ggccctcaga cgtccatggg tgggtggggga ggcacgtgct gtttgccct gtctctgctc
420
agagtctcat aggaagatgc atggtccaca caacagttag tcggcaggga gtccaggctt
480
cccctcccaa ccagtgggtg tgagacgctt ggtttataac ccaagatccc ttgtcccatt
540
ggtgcctcct gaatctccca cctcccggcg cacctgcatg gcctctacct gacgcgt
597

<210> 1180

<211> 105

<212> PRT

<213> Homo sapiens

<400> 1180

Met	Gly	Arg	Gln	Arg	Gln	Arg	Pro	Gly	Asp	Lys	Ala	His	Phe	Phe	Pro
1			5					10					15		
Cys	Pro	Gly	Leu	Pro	His	Gly	Pro	Ser	Met	Val	Asp	Val	Ala	Leu	Arg
		20					25					30			
Arg	Pro	Trp	Val	Val	Gly	Glu	Ala	Arg	Ala	Val	Trp	Pro	Cys	Leu	Cys
	35					40					45				
Ser	Glu	Ser	His	Arg	Lys	Met	His	Gly	Pro	His	Asn	Ser	Glu	Ser	Ala
	50				55					60					
Gly	Ser	Pro	Gly	Phe	Pro	Ser	Gln	Pro	Val	Val	Leu	Arg	Arg	Leu	Val
65				70					75					80	
Tyr	Asn	Pro	Arg	Ser	Leu	Val	Pro	Leu	Val	Pro	Pro	Glu	Ser	Pro	Thr
			85				90							95	
Ser	Arg	Gly	Thr	Cys	Met	Ala	Ser	Thr							
		100					105								

<210> 1181

<211> 352

<212> DNA

<213> Homo sapiens

<400> 1181

gtcgactacc tcgatgtttc cccgcgtcag atggtctccg tggctactgc catgattccg
60
ttcctcgagc acgacgacgc taaccgtgcc ctgatgggtg cgaacatgca gcgtcaggct
120
gtgccgtgct tgcgttcgga ggctccgttc gtcgggtaccg gtatggagca gcgtgctgct
180
tacgacgccg gcgatgtcat tgctgcttcg gccacagggtg tggctgagac cgtgtcggca
240
ggcttcatca ccatcatgga cgatgagggc cagcgccaca cctacctgct gcgcaagttc
300

gagcgcacca accagggcac ctgctacaac cagaagccac tgttgacgag gg
352

<210> 1182
<211> 117
<212> PRT
<213> Homo sapiens

<400> 1182
Val Asp Tyr Leu Asp Val Ser Pro Arg Gln Met Val Ser Val Ala Thr
1 5 10 15
Ala Met Ile Pro Phe Leu Glu His Asp Asp Ala Asn Arg Ala Leu Met
20 25 30
Gly Ala Asn Met Gln Arg Gln Ala Val Pro Leu Leu Arg Ser Glu Ala
35 40 45
Pro Phe Val Gly Thr Gly Met Glu Gln Arg Ala Ala Tyr Asp Ala Gly
50 55 60
Asp Val Ile Val Ala Ser Ala Thr Gly Val Val Glu Thr Val Ser Ala
65 70 75 80
Gly Phe Ile Thr Ile Met Asp Asp Glu Gly Gln Arg His Thr Tyr Leu
85 90 95
Leu Arg Lys Phe Glu Arg Thr Asn Gln Gly Thr Cys Tyr Asn Gln Lys
100 105 110
Pro Leu Leu Thr Arg
115

<210> 1183
<211> 432
<212> DNA
<213> Homo sapiens

<400> 1183
gacccctctg ggcgtgggc caagcgcgtg gtgaggccgt cctctcctgc agaaccccg
60
cctcttcgcc cctgcccgt cacctgttct gtctctgctca cctcctccag gaagcctgcc
120
tggccttctc catgctgatg ggcgtggccc ttgtccctgc agccatgcat tgacctccgt
180
ggctcctgga ggccaggcca cgtctcctc cctctctgggt gaggtagagg cacagcctgg
240
gtgcgtgggg ccgtggcggc tccgaggcgc caccgctgtg tcctctcatg agtgggtgcc
300
gtccaggtct gtctctgggt ggctgcgagg aggaggttgg cctcgcgcgg ccatgtgcgt
360
gacagtggag acatcgccag cctctctgctt gcacagctga cggcagcccc tctctctcca
420
gccatgtccc ca
432

<210> 1184
<211> 141
<212> PRT
<213> Homo sapiens

<400> 1184

Met Ala Gly Glu Arg Gly Ala Ala Val Ser Cys Ala Ser Arg Arg Leu
 1 5 10 15
 Ala Met Ser Pro Leu Ser Arg Thr Trp Pro Arg Glu Ala Asn Leu Leu
 20 25 30
 Leu Ala Ala Ser Pro Gly Gln Thr Trp Thr Ala Pro Thr His Glu Arg
 35 40 45
 Thr Gln Arg Trp Arg Leu Gly Ala Ala Thr Ala Pro Arg Thr Gln Ala
 50 55 60
 Val Pro Leu Thr His Pro Glu Gly Met Arg Thr Trp Pro Gly Leu Gln
 65 70 75 80
 Glu Pro Arg Arg Ser Met His Gly Cys Arg Asp Lys Gly His Ala His
 85 90 95
 Gln His Gly Glu Gly Gln Ala Gly Phe Leu Glu Glu Val Ser Arg Thr
 100 105 110
 Glu Gln Val Ser Gly Gln Gly Arg Arg Gly Arg Gly Ser Ala Gly Glu
 115 120 125
 Asp Gly Leu Thr Thr Arg Leu Asp Gln Arg Pro Glu Gly
 130 135 140

<210> 1185

<211> 423

<212> DNA

<213> Homo sapiens

<400> 1185

accggtgaat ttggccttaa cagcgatgga actcctggcc catcttatga acctggcatg
 60
 gaattacgcg gcaaatatgt attgttgggt gaagggtgtac ggggctctct atctaaacaa
 120
 gtcataata aataccaatt atccgagggt catgaaccac aaaagttcgg ccttggctta
 180
 aaagaaattt gggaaataga cccagaaaaa cacaaagaag gcagagtcag tcataccatg
 240
 ggctggccat taaatggcaa tgctggcggc ggttctttta tttatcatgc agaaaacaat
 300
 caagtcttta tcggctttgt ggtgcatctt aattacgcca acccttacct atccccttac
 360
 caagaatttc aacgctttaa acaccatccg attatcgcg agctattaac tggcggtaaa
 420
 cgc
 423

<210> 1186

<211> 141

<212> PRT

<213> Homo sapiens

<400> 1186

Thr Gly Glu Phe Gly Leu Asn Ser Asp Gly Thr Pro Gly Pro Ser Tyr
 1 5 10 15
 Glu Pro Gly Met Glu Leu Arg Gly Lys Tyr Val Leu Leu Gly Glu Gly
 20 25 30
 Val Arg Gly Ser Leu Ser Lys Gln Val Ile Asn Lys Tyr Gln Leu Ser


```

      35              40              45
Glu Gly His Glu Pro Gln Lys Phe Gly Leu Gly Leu Lys Glu Ile Trp
      50              55              60
Glu Ile Asp Pro Glu Lys His Lys Glu Gly Arg Val Ser His Thr Met
65              70              75              80
Gly Trp Pro Leu Asn Gly Asn Ala Gly Gly Gly Ser Phe Ile Tyr His
      85              90              95
Ala Glu Asn Asn Gln Val Phe Ile Gly Phe Val Val His Leu Asn Tyr
      100              105              110
Ala Asn Pro Tyr Leu Ser Pro Tyr Gln Glu Phe Gln Arg Phe Lys His
      115              120              125
His Pro Ile Ile Ala Glu Leu Leu Thr Gly Gly Lys Arg
      130              135              140

```

<210> 1187

<211> 387

<212> DNA

<213> Homo sapiens

<400> 1187

```

acgcgtgctg gtgagtttaa attgaatgct gatggtaatt tggtgacgaa ttcaggggct
60
aagggtccagg gctataatgc aatagatggc atagtcggtg ggaacttaga agatatggta
120
gtaccactcg ctcgaatttc tcctcaagca acatcaagtg ttgatttaaa agtgaatctt
180
aattccgaag gtgaggatgt gccgccttat attcgagcgg actttgatcc agccaatcca
240
gatacttatg actataactca gacccaaacg gttgcggatg ggagtggtaa taatcattta
300
attagttatt actatgctaa aagtgatgta gcaaatacct atcagggttta tgccacggta
360
gatgggaagt cgactgatga taccggt
387

```

<210> 1188

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1188

```

Thr Arg Ala Gly Glu Phe Lys Leu Asn Ala Asp Gly Asn Leu Val Thr
      1              5              10              15
Asn Ser Gly Ala Lys Val Gln Gly Tyr Asn Ala Ile Asp Gly Ile Val
      20              25              30
Gly Gly Asn Leu Glu Asp Met Val Val Pro Thr Ala Arg Ile Ser Pro
      35              40              45
Gln Ala Thr Ser Ser Val Asp Leu Lys Val Asn Leu Asn Ser Glu Gly
      50              55              60
Glu Asp Val Pro Pro Tyr Ile Arg Ala Asp Phe Asp Pro Ala Asn Pro
65              70              75              80
Asp Thr Tyr Asp Tyr Thr Gln Thr Gln Thr Val Ala Asp Gly Ser Gly
      85              90              95
Asn Asn His Leu Ile Ser Tyr Tyr Tyr Ala Lys Ser Asp Val Ala Asn

```


100 105 110
 Thr Tyr Gln Val Tyr Ala Thr Val Asp Gly Lys Ser Thr Asp Asp Thr
 115 120 125
 Gly

<210> 1189
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 1189
 tcgatcgccg accgcccggg ccttgccccc ggcgatgatcg gtggcctggt ggccagcacc
 60
 ctgggtgctg gtttcattgg cggcatcggt gcagggtttc tggccggtta cagcgccaag
 120
 gccattgccc gctgggcacg gctgcccagc agcctggatg cgctcaaacc gattctgatc
 180
 atttcgctgc tggccagcct gttcactggg ttggtgatga tctacgtggt cggccagccg
 240
 gtggcggcca tgctcggagg cctgacacac tttctcgaca gcatgggtac caccaacgcc
 300
 attctcctgg gcntgttgct cggcggctag
 330

<210> 1190
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1190
 Ser Ile Ala Asp Arg Pro Gly Leu Ala Pro Gly Met Ile Gly Gly Leu
 1 5 10 15
 Leu Ala Ser Thr Leu Gly Ala Gly Phe Ile Gly Gly Ile Val Ala Gly
 20 25 30
 Phe Leu Ala Gly Tyr Ser Ala Lys Ala Ile Ala Arg Trp Ala Arg Leu
 35 40 45
 Pro Ser Ser Leu Asp Ala Leu Lys Pro Ile Leu Ile Ile Ser Leu Leu
 50 55 60
 Ala Ser Leu Phe Thr Gly Leu Val Met Ile Tyr Val Val Gly Gln Pro
 65 70 75 80
 Val Ala Ala Met Leu Gly Gly Leu Thr His Phe Leu Asp Ser Met Gly
 85 90 95
 Thr Thr Asn Ala Ile Leu Leu Gly Xaa Leu Leu Gly Gly
 100 105

<210> 1191
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 1191
 cggccgacga tgtgcggtga gcaagagatt tggagagcca tgatgacgtc agcagacaaa
 60

gcagggacta acggacagac catgcagaca ccgcccgttg tgcgccgca ggactgggag
 120
 gcagcccgtc agcaactgct cgtgaaggaa aaggcgcata cccgtgcccg cgacgcactc
 180
 gccgccgaac ggaggcgcat gccgtggatg gaagtgacaa aaacctacgc attcgaggcg
 240
 ccctcgggca aggccagtct gctcgatctg ttccagggcc ggaagcagct gatcctgtac
 300
 cgggccttct tcgagccggg cgtgttcggc tggcccgacc atgcctgccg c
 351

<210> 1192

<211> 114

<212> PRT

<213> Homo sapiens

<400> 1192

Met	Cys	Gly	Glu	Gln	Glu	Ile	Trp	Arg	Ala	Met	Met	Thr	Ser	Ala	Asp
1				5					10					15	
Lys	Ala	Gly	Thr	Asn	Gly	Gln	Thr	Met	Gln	Thr	Pro	Pro	Val	Val	Ser
			20					25					30		
Pro	Gln	Asp	Trp	Glu	Ala	Ala	Arg	Gln	Gln	Leu	Leu	Val	Lys	Glu	Lys
		35					40					45			
Ala	His	Thr	Arg	Ala	Arg	Asp	Ala	Leu	Ala	Ala	Glu	Arg	Arg	Arg	Met
	50				55					60					
Pro	Trp	Met	Glu	Val	Thr	Lys	Thr	Tyr	Ala	Phe	Glu	Ala	Pro	Ser	Gly
65				70					75					80	
Lys	Ala	Ser	Leu	Leu	Asp	Leu	Phe	Gln	Gly	Arg	Lys	Gln	Leu	Ile	Leu
			85					90					95		
Tyr	Arg	Ala	Phe	Phe	Glu	Pro	Gly	Val	Phe	Gly	Trp	Pro	Asp	His	Ala
		100					105						110		

Cys Arg

<210> 1193

<211> 722

<212> DNA

<213> Homo sapiens

<400> 1193

ggatcccagc ctccagatcc catctttagt ctcttctttc tctacactna ggttgctccc
 60
 cgacttagga cgcccagttt gtactcagtg tttgctcttt tatggcagag cctctgcact
 120
 cccagcctcc tggccccctc tgtacatgat ttcccttggt gccactccat gcatttttct
 180
 tggctcagga cttagtgggc ctccatggga cttggtacct ctacttggtc cttcttgga
 240
 tctgtaactt tgtgttcccc accattcttt ctttatgaa ccgatgggtc aacagcatga
 300
 ctacctgaaa ttcttagtca ctccagctg ctttagtgga gggaaaatgc ccacagcaca
 360
 ggaaatagtc ctgcccttcg agagaggcca ggggatggga gcgtgtccag agaagggcga
 420

tgggttgatg aaggggtggcc acagcgcccc ggaggaaggg gccagaacgc tctctgttct
 480
 gttccatgag gaggattatg ttggtgtgtg tagtccccctg gttcagagtt gtccagaaat
 540
 agctcagtgt aaggaacaat ttcccaaaga tcaaaagagc tgtctcaaga tagcagtgcg
 600
 ttcccagccc ctacaggtgt atacagcaca aagggaggga ccccctagtg tggctgtcac
 660
 agaggggaagt ggacgtcctg tggtttgacc ccaccagatg gctttagaga tctgggccccg
 720
 ag
 722

<210> 1194

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1194

Met Val Gln Gln His Asp Tyr Leu Lys Phe Leu Val Thr Pro Ser Cys
 1 5 10 15
 Phe Ser Gly Gly Lys Met Pro Thr Ala Gln Glu Ile Val Leu Pro Phe
 20 25 30
 Glu Arg Gly Gln Gly Met Gly Ala Cys Pro Glu Lys Gly Asp Gly Leu
 35 40 45
 Met Lys Gly Gly His Ser Ala Arg Glu Glu Gly Ala Arg Thr Leu Ser
 50 55 60
 Val Leu Phe His Glu Glu Asp Tyr Val Gly Val Cys Ser Pro Leu Val
 65 70 75 80
 Gln Ser Cys Pro Glu Ile Ala Gln Cys Lys Glu Gln Phe Ser Lys Asp
 85 90 95
 Gln Lys Ser Cys Leu Lys Ile Ala Val Arg Ser Gln Pro Leu Gln Val
 100 105 110
 Tyr Thr Ala Gln Arg Glu Gly Pro Pro Ser Val Ala Val Thr Glu Gly
 115 120 125
 Ser Gly Arg Pro Val Val
 130

<210> 1195

<211> 391

<212> DNA

<213> Homo sapiens

<400> 1195

tctagagcat gatattccgc gggcgcgccc ggggtggactt tggttcgaga gtggaactaa
 60
 gtgagtaatg ggggcggcgc ggccagacgc gctcccagcc ccctggcgag agtgctgccc
 120
 ggtttcccgg gggcacggga gtgtgtctag gaggggaggg caggatcctt cctcgagtcc
 180
 tgtcctgaac aaaagaaaac gaggtgggtg gtgcttgaac ggccctgttt actctgcaga
 240
 tagccgaact ggtaggactc cggcgcgccc tatttatctt gattggctct gcctgaaggc
 300

<210> 1196
<211> 102
<212> PRT
<213> Homo sapiens

```
<210> 1197
<211> 386
<212> DNA
<213> Homo sapiens
```

```
<210> 1198
<211> 128
<212> PRT
<213> Homo sapiens
```

1073


```

1           5           10           15
Ser Val Met Gly Trp Gln Gln Asp Glu Ile Ile Val Asn Val Gln Gly
20           25           30
Asp Glu Pro Phe Leu Pro Val Ala Leu Ile His Ala Thr Val Lys Ala
35           40           45
Leu Ala Asp Asp Ala Glu Ser Glu Met Ala Thr Ile Ala Cys Ala Ile
50           55           60
Asp Asn Val Ala Glu Leu Phe Asn Pro Asn Val Val Lys Val Val Cys
65           70           75           80
Asp Glu Lys Gln Arg Ala Leu Tyr Phe Ser Arg Ala Pro Met Pro Trp
85           90           95
Asp Arg Asn Gly Phe Met Glu Lys Thr Asp Asp Gln Ala Leu Pro Ala
100          105          110
Asp Phe Pro Ala Leu Arg His Ile Gly Pro Tyr Val Tyr Arg Thr Thr
115          120          125

```

<210> 1199

<211> 318

<212> DNA

<213> Homo sapiens

<400> 1199

```

acgcgttcag cgctcatgtac agccccgggc cggccaattt gatgggcctc aatgccgggc
60
ttacgggcaa attgcgtcgc tccagcgggt tctacatcgg cgtgggggtgc gcgatgctgc
120
tgatggtcgg gctggttggg ctcaccggcg aagcgatcat ctcccaggcg gcgctgccgt
180
atatttcttt gattggcggg gtgtacacgc tgtacctcgc ctaccaggtg ttcaccgcac
240
gtaccgaagt ggatgacgcc ccaagcgcgc ctgccaagac cttgaccttc tggaatggcc
300
tggtgatecca gttgctcc
318

```

<210> 1200

<211> 101

<212> PRT

<213> Homo sapiens

<400> 1200

```

Met Tyr Ser Pro Gly Pro Val Asn Leu Met Gly Leu Asn Ala Gly Leu
1           5           10           15
Thr Gly Lys Leu Arg Arg Ser Ser Gly Phe Tyr Ile Gly Val Gly Cys
20           25           30
Ala Met Leu Leu Met Val Gly Leu Val Gly Leu Thr Gly Glu Ala Ile
35           40           45
Ile Ser Gln Ala Ala Leu Pro Tyr Ile Ser Leu Ile Gly Gly Val Tyr
50           55           60
Thr Leu Tyr Leu Ala Tyr Gln Val Phe Thr Ala Arg Thr Glu Val Asp
65           70           75           80
Asp Ala Pro Ser Ala Pro Ala Lys Thr Leu Thr Phe Trp Asn Gly Leu
85           90           95
Val Ile Gln Leu Leu

```


100

<210> 1201
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 1201
 gtcgacgcac aactccagct ggctcgctccc aacagcccga acatccccct ttatcgcgat
 60
 atgatacctca ccgtgctgcy catggccaag gatgaccgca accgttgga tgcaaaaatc
 120
 acgctgcagg cgatccgcga gctggataac gccttccgcy tgctggaaca gttcaagggc
 180
 cgccgcaagg tcacgggtgtt tggctcggcy cgcacgccgg tcgaaagccc gctgtacgcc
 240
 ttggcaaggg aagtcggcac gctgctggcy caatccgacc tgatgggtgat caccggcggt
 300
 ggcgggcgga tcatggccgc tgcccacgag ggcgcaaggt ctggaacaca gcctgggggt
 360

<210> 1202
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 1202
 Val Asp Ala Gln Leu Gln Leu Val Ala Pro Asn Ser Pro Asn Ile Pro
 1 5 10 15
 Leu Tyr Arg Asp Met Ile Leu Thr Val Leu Arg Met Ala Lys Asp Asp
 20 25 30
 Arg Asn Arg Trp Asn Ala Lys Ile Thr Leu Gln Ala Ile Arg Glu Leu
 35 40 45
 Asp Asn Ala Phe Arg Val Leu Glu Gln Phe Lys Gly Arg Arg Lys Val
 50 55 60
 Thr Val Phe Gly Ser Ala Arg Thr Pro Val Glu Ser Pro Leu Tyr Ala
 65 70 75 80
 Leu Ala Arg Glu Val Gly Thr Leu Leu Ala Gln Ser Asp Leu Met Val
 85 90 95
 Ile Thr Gly Gly Gly Gly Gly Ile Met Ala Ala Ala His Glu Gly Ala
 100 105 110
 Arg Ser Gly Thr Gln Pro Gly Gly
 115 120

<210> 1203
 <211> 477
 <212> DNA
 <213> Homo sapiens

<400> 1203
 ccggatatgg cagctcgact tcattcgacc agagttcttg gaacatttg ctatcatgca
 60
 cctgagtatg caatgactgg acaacttagc tctaagagtg acgtttacag ttttggagtt
 120

ggtcttcttg agctcctgac tggaagaaag cctgtggatc ttccattacc aagaggacag
 180
 caaagtcttg tgacatgggc aactccacgg ctttgtgaag ataaagttag gcaatgcggt
 240
 gattcaagac ttggagtaga atatcctcct aaatccgttg caaagtttgc agctgttgct
 300
 gcactgtgtg tgcaatatga agctgacttt cgacccaaca tgagcatcgt ggtgaaggcg
 360
 cttcagcccc tgctgaatgc acgtgcatcc aacaaccctg gatgaatgaa tgaatgactg
 420
 ccgttgcttt tccctgacga gagtatctga atcagacaat catgtagcat tgaattc
 477

<210> 1204

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1204

Pro	Asp	Met	Ala	Ala	Arg	Leu	His	Ser	Thr	Arg	Val	Leu	Gly	Thr	Phe
1				5					10					15	
Gly	Tyr	His	Ala	Pro	Glu	Tyr	Ala	Met	Thr	Gly	Gln	Leu	Ser	Ser	Lys
		20						25				30			
Ser	Asp	Val	Tyr	Ser	Phe	Gly	Val	Gly	Leu	Leu	Glu	Leu	Leu	Thr	Gly
	35						40				45				
Arg	Lys	Pro	Val	Asp	Leu	Pro	Leu	Pro	Arg	Gly	Gln	Gln	Ser	Leu	Val
	50				55					60					
Thr	Trp	Ala	Thr	Pro	Arg	Leu	Cys	Glu	Asp	Lys	Val	Arg	Gln	Cys	Val
65				70					75					80	
Asp	Ser	Arg	Leu	Gly	Val	Glu	Tyr	Pro	Pro	Lys	Ser	Val	Ala	Lys	Phe
			85					90					95		
Ala	Ala	Val	Ala	Ala	Leu	Cys	Val	Gln	Tyr	Glu	Ala	Asp	Phe	Arg	Pro
		100						105					110		
Asn	Met	Ser	Ile	Val	Val	Lys	Ala	Leu	Gln	Pro	Leu	Leu	Asn	Ala	Arg
	115					120					125				
Ala	Ser	Asn	Asn	Pro	Gly										
	130														

<210> 1205

<211> 407

<212> DNA

<213> Homo sapiens

<400> 1205

acgcgttgcc attgaagact ggcaattaca cgatttacac atcattgatg ctgcagttga
 60
 tgtgcacagg gaaacactag ctaccgtgca gcaggaaatg atgggagaaa tcagccatgg
 120
 taacaagaac caagccatcc tggacacaga cggccgggggt tgtgcgaacg gaacgttagt
 180
 ctatcaatgt gttgcggaac gattcaaggg atgtggcccc ccccatcac ttgcccaatc
 240
 aagatgtgga gggaaatctgt ctgcgcagaa cctggatctc gtggttgtag gacgttgtec
 300

ccttctcgct cggacgccgc tcatgctccg ccacgtcgct gagcgagtga caaggtatcc
 360
 tgggaccatg cgtatggttt caactgaagc gctggcgaat cgtaaan
 407

<210> 1206
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 1206
 Met Met Gly Glu Ile Ser His Gly Asn Lys Asn Gln Ala Ile Leu Asp
 1 5 10 15
 Thr Asp Gly Arg Gly Cys Ala Asn Gly Thr Leu Val Tyr Gln Cys Val
 20 25 30
 Ala Glu Arg Phe Lys Gly Cys Trp Pro Pro Pro Ser Leu Ala Gln Ser
 35 40 45
 Arg Cys Gly Gly Asn Leu Ser Ala Gln Asn Leu Asp Leu Val Val Val
 50 55 60
 Arg Arg Cys Pro Leu Leu Ala Arg Thr Pro Leu Met Leu Arg His Val
 65 70 75 80
 Ala Glu Arg Val Thr Arg Tyr Pro Gly Thr Met Arg Met Val Ser Thr
 85 90 95
 Glu Ala Leu Ala Asn Arg Lys
 100

<210> 1207
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 1207
 gctagcatgt cacttttttc ttcagtagat ggcactggag agacattgca ggatgaagag
 60
 gcttgcccttc attcctatgt gctttcccg ccttgcttct ccagccatgt gtgggacaac
 120
 caggggtgct caccacctag tgagtttcag ggacactcca catgtcccag caagtcttat
 180
 cagcatctta gctggcttct caacaagact cagtggcacc cctgtggatg tctcccatca
 240
 agtttcatta gtgccccagg gggagactcc cagaaagttt cagcagcacc ac
 292

<210> 1208
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 1208
 Met Ser Leu Phe Ser Ser Val Asp Gly Thr Gly Glu Thr Leu Gln Asp
 1 5 10 15
 Glu Glu Ala Cys Leu His Ser Tyr Val Leu Ser Arg Pro Cys Phe Ser
 20 25 30
 Ser His Val Trp Asp Asn Gln Gly Cys Ser Pro Pro Ser Glu Phe Gln


```

      35              40              45
Gly His Ser Thr Cys Pro Ser Lys Ser Tyr Gln His Leu Ser Trp Leu
  50              55              60
Leu Asn Lys Thr Gln Trp His Pro Cys Gly Cys Leu Pro Ser Ser Phe
  65              70              75              80
Ile Ser Ala Pro Gly Gly Asp Ser Gln Lys Val Ser Ala Ala Pro
      85              90              95

```

<210> 1209
 <211> 431
 <212> DNA
 <213> Homo sapiens

<400> 1209
 ttgggttccta taatggcggg agcttacatt tttgctggta tcattatattt gttaatgcat
 60
 gccagtgaag ttattccggc aatatcaact attgtcgagt atgcctttac gccagcttct
 120
 gcgcaggggtg gttttgctgg tgcaacggta tggatggcga ttcgttttgg tgttggccgt
 180
 ggtgtatttt caaatgaggg aggttttaggt tcggcgccga tcgctcatgc cagtgcacaa
 240
 actaatgaac cggttcgcca aggggttggtg gcgatggttag gtactttcct tgatacactt
 300
 attatttgta caggtttagt gattgttatt tctggtgctt ggacagaagg attgtcgggt
 360
 gctgcgtaaa catctgctgc atttaatctg gcgttacctg gttggggggg atacttagtc
 420
 gctatcagct g
 431

<210> 1210
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 1210
 Leu Val Pro Ile Met Ala Val Ala Tyr Ile Phe Ala Gly Ile Ile Ile
 1 5 10 15
 Leu Leu Met His Ala Ser Glu Val Ile Pro Ala Ile Ser Thr Ile Val
 20 25 30
 Glu Tyr Ala Phe Thr Pro Ala Ser Ala Gln Gly Gly Phe Ala Gly Ala
 35 40 45
 Thr Val Trp Met Ala Ile Arg Phe Gly Val Ala Arg Gly Val Phe Ser
 50 55 60
 Asn Glu Ala Gly Leu Gly Ser Ala Pro Ile Ala His Ala Ser Ala Gln
 65 70 75 80
 Thr Asn Glu Pro Val Arg Gln Gly Leu Val Ala Met Leu Gly Thr Phe
 85 90 95
 Leu Asp Thr Leu Ile Ile Cys Thr Gly Leu Val Ile Val Ile Ser Gly
 100 105 110
 Ala Trp Thr Glu Gly Leu Ser Gly Ala Ala Leu Thr Ser Ala Ala Phe
 115 120 125
 Asn Leu Ala Leu Pro Gly Trp Gly Gly Tyr Leu Val Ala Ile Ser

130

135

140

<210> 1211
 <211> 480
 <212> DNA
 <213> Homo sapiens

<400> 1211
 gaggagggac gagaggctgg tgagatggag tccagcaccc tgcaggagag cccaggggcc
 60
 agagccgaag ctgtgcttct ccatgagatg gatgaagatg atctggccaa tgccttgatc
 120
 tggcctgaga ttcaacagga gctgaaaatc attgaatctg aggaggagct ctcctcgttg
 180
 ccacctctg ctctgaagac cagcccaatt cagcctattc tcgagtcgag tctggggccc
 240
 tttattccct cagagcctcc tgggagcttg ccttggtggt ccttcctgc tccagtctcc
 300
 acccctctgg aggtgtggac tagggatcca gccaatcaga gcacacaggg ggcttcaca
 360
 gcagccagca gagagaagcc ggaacctgag cagggcctgc acccagacct cgccagcctg
 420
 gctcctctgg aaatagttcc ttttgagaag gcctctccag aggctggagt gtgctcgca
 480

<210> 1212
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 1212
 Glu Glu Gly Arg Glu Ala Gly Glu Met Glu Ser Ser Thr Leu Gln Glu
 1 5 10 15
 Ser Pro Arg Ala Arg Ala Glu Ala Val Leu Leu His Glu Met Asp Glu
 20 25 30
 Asp Asp Leu Ala Asn Ala Leu Ile Trp Pro Glu Ile Gln Gln Glu Leu
 35 40 45
 Lys Ile Ile Glu Ser Glu Glu Glu Leu Ser Ser Leu Pro Pro Pro Ala
 50 55 60
 Leu Lys Thr Ser Pro Ile Gln Pro Ile Leu Glu Ser Ser Leu Gly Pro
 65 70 75 80
 Phe Ile Pro Ser Glu Pro Pro Gly Ser Leu Pro Cys Gly Ser Phe Pro
 85 90 95
 Ala Pro Val Ser Thr Pro Leu Glu Val Trp Thr Arg Asp Pro Ala Asn
 100 105 110
 Gln Ser Thr Gln Gly Ala Ser Thr Ala Ala Ser Arg Glu Lys Pro Glu
 115 120 125
 Pro Glu Gln Gly Leu His Pro Asp Leu Ala Ser Leu Ala Pro Leu Glu
 130 135 140
 Ile Val Pro Phe Glu Lys Ala Ser Pro Glu Ala Gly Val Cys Ser Arg
 145 150 155 160

<210> 1213
 <211> 1141

<212> DNA

<213> Homo sapiens

<400> 1213

```

nntcatgatg gcggcctggt gtgtgggtat gtccacgatg ggcgcgtcac gcgtgtcgcc
60
cgtgatgctc aggggagggt taccgggata gaggggccat cagggcgttg gagttacggc
120
tacaacgagg ctgggtcact catcagcgcg acggggcccc gcacacaaca taactggact
180
cacgagcct atggccggct caccagccac gccacatccg gaaccgacac caccttcgcc
240
tgggaccagg aaggccacct ggcgagacg tgtacgcgtg cacacgggca tgccactgcc
300
accagtatc gctatgacgc agcgggacgg cgcgtcagtg cgaccagctc agacggccag
360
gaggagcgtt actcctggga tggacgggggt tggctgtctg acatcaccac cgacgccacg
420
accgtatcga ctcacgtcga tgcattgggg cgcgccagtc gtatcaccac taaggggccag
480
caggtacgag tggactggga cctcgtgacc ggagccccca cctcgattga tggtcgtcct
540
gtgcttcccc tgcccgagg acgcatcctc ggcgccacac ccatcggcga taccaaccta
600
tggcgtgagg tcatgcccac cgaccctgac aacccttacc agcccggcac ggccactatt
660
gaggggtgtcc ccgagacgat caggatggcc gggaacacgc tagtggttga tggtcaccct
720
tgggtgggggc gcgcctctac gacccaacta ccaccacctt cttgtctcct gacccgtaa
780
ccccgccgc cggcgcgcta tgggccaaca acccctacga ctacgccaac aacaaccccc
840
tcaccctcac cgatcctctc gggaccacc ccgtcaccga cgaccaactg gcactcctca
900
cccaccccat cggcacactc gcacactacg tcgccaactc cgtcagcaca ctcgtgcatc
960
acatcaccga tccgatcagc cactgggtggg ccaccacaaa agaccggatc ctctccggg
1020
acttcctgat cggtgccggc ctcgtcatcg gcggtatcgc gtagcggcca cgggcgtagg
1080
aggaccctc ctagccgagg ccatttcagg gggactcatc tcaggcggct tttccgctag
1140
c
1141

```

<210> 1214

<211> 259

<212> PRT

<213> Homo sapiens

<400> 1214

```

Xaa His Asp Gly Gly Leu Val Cys Gly Tyr Val His Asp Gly Arg Val
1           5           10          15
Thr Arg Val Ala Arg Asp Ala Gln Gly Arg Val Thr Gly Ile Glu Gly

```



```
<210> 1215
<211> 317
<212> DNA
<213> Homo sapiens
```

```
<210> 1216
<211> 102
<212> PRT
```


<213> Homo sapiens

<400> 1216

```

Met Tyr Cys Gly Glu Pro Thr Leu Phe Ser Thr Met Asn Ala Ser Thr
 1           5           10           15
Arg Pro Arg Asp Ser Asp Gly Ser Ser Pro Pro Lys Val Val Pro Arg
      20           25           30
Tyr Phe Phe His Ala Pro Thr Pro Ala Thr Ala Arg Thr Pro Pro Pro
      35           40           45
Arg Ser Gly Val Leu Pro Val Met Ala Gly Leu Thr Pro Gly Ala Val
      50           55           60
Pro Ile Lys Gly Lys Gln Val Gly Ile Pro Pro Asp Ala Gly Cys Arg
      65           70           75           80
His Ala His Val Val His Pro Gln Val Asp Arg Ala His Arg Arg Leu
      85           90           95
Asp Leu Gln Arg Thr Arg
      100

```

<210> 1217

<211> 548

<212> DNA

<213> Homo sapiens

<400> 1217

```

nacgcgtggg ttgacgcgct attaaacgat aagagcaaaa aaacatttcc tcatttatta
60
cgttgtcggg tgaatgatgt ttctggtgat agtcagtggg tagagatgcg aggcagtgtg
120
acagggttggg acagccgtca tcgagctcag atggtgagag ggacattcga gcgtattaac
180
catcttattg acgctgaaaa tgaattaatt gcggcccgtg aagatgctca gcgacgagag
240
cttattttat cggcttttgc aaataatatt ccagaccctg tttggtctaa agatgaaagc
300
ggtcgttatt tggactgtaa ccatgcgttt tgtctgttta atgggtttaga gcagagtgat
360
gttcaggggc aaaaagacag tgaattaaac ttagataata atgggtcaata ttatcaagat
420
atgggcggtg aggtattagc gcgaggggag atttttcatg aacattgttg gggtagcctt
480
gcagatggaa gtgacaaccg cttgtttgaa gtatatcgag tccctatcaa agagcctacc
540
gtgaattc
548

```

<210> 1218

<211> 182

<212> PRT

<213> Homo sapiens

<400> 1218

```

Xaa Ala Trp Val Asp Ala Leu Leu Asn Asp Lys Ser Lys Lys Thr Phe
 1           5           10           15
Pro His Leu Leu Arg Cys Arg Val Asn Asp Val Ser Gly Asp Ser Gln

```



```

                20                25                30
Trp Ile Glu Met Arg Gly Ser Val Thr Gly Trp Asp Ser Arg His Arg
      35                40                45
Ala Gln Met Val Arg Gly Thr Phe Glu Arg Ile Asn His Leu Ile Asp
      50                55                60
Ala Glu Asn Glu Leu Ile Ala Ala Arg Glu Asp Ala Gln Arg Arg Glu
      65                70                75                80
Leu Ile Leu Ser Ala Leu Leu Asn Asn Ile Pro Asp Pro Val Trp Ser
      85                90                95
Lys Asp Glu Ser Gly Arg Tyr Leu Asp Cys Asn His Ala Phe Cys Leu
      100                105                110
Phe Asn Gly Leu Glu Gln Ser Asp Val Gln Gly Gln Lys Asp Ser Glu
      115                120                125
Leu Asn Leu Asp Asn Asn Gly Gln Tyr Tyr Gln Asp Met Gly Gly Glu
      130                135                140
Val Leu Ala Arg Gly Glu Ile Phe His Glu His Cys Trp Gly Thr Pro
      145                150                155                160
Ala Asp Gly Ser Asp Asn Arg Leu Phe Glu Val Tyr Arg Val Pro Ile
      165                170                175
Lys Glu Pro Thr Val Asn
      180

```

<210> 1219
 <211> 308
 <212> DNA
 <213> Homo sapiens

```

<400> 1219
acgcgtgaag ggaggaatac agatggagaa atgggtccac caaaaaatga tgaggggtacc
60
tccagagaaa attaccaaga ccattctgtt agtattttcc agctccacag gcctttggaa
120
gttcccagac caccctccct cttttcaaac taaaacaggg atggctctta accaccacc
180
aaaggcaagg ggggtcttaa aacccaaacc aagtggggca ggggccagcc tcttcaggag
240
ggcccaaccc tgcagcctct gccatttgg gaaagaccgt gagttggaat tatgggtcgg
300
tgggggggc
308

```

<210> 1220
 <211> 95
 <212> PRT
 <213> Homo sapiens

```

<400> 1220
Met Glu Lys Trp Val His Gln Lys Met Met Arg Val Pro Pro Glu Lys
1      5      10      15
Ile Thr Lys Thr Ile Leu Leu Val Phe Ser Ser Ser Thr Gly Leu Trp
      20      25      30
Lys Phe Pro Asp His Pro Pro Ser Phe Gln Thr Lys Thr Gly Met Ala
      35      40      45
Leu Asn His His Pro Lys Ala Arg Gly Val Leu Lys Pro Lys Pro Ser

```


50		55		60											
Gly	Ala	Gly	Ala	Ser	Leu	Phe	Arg	Arg	Ala	Gln	Pro	Cys	Ser	Leu	Cys
65		70		75		80									
Pro	Phe	Gly	Lys	Asp	Arg	Glu	Leu	Glu	Leu	Trp	Val	Gly	Gly	Gly	
		85				90							95		

<210> 1221
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 1221
 gcgcgccagg ggcaggttagc ctgtggcagg tgaggctgcg tgtggggtgt gctcccagag
 60
 gcccgtccag gaaagctgca cctcagagaa gcagtttctt tccttacctg ggaagtttct
 120
 tctgtaacac gttaagcccc acaggttaagg cctgatcccc cctggacggc tccccctctc
 180
 agtggttcca gtctggaggt antcttttct aagccatcct ctcagaatgt gatgggtacc
 240
 aggatgcaca cccggtggcc ctgtggtgtg aggcctcagc aaacacgggc agaagatgaa
 300
 cacacagaga cccgcccgtc ggaaggagag gagggagcgg atacggaggc ccacgtgcca
 360
 gaagggtccc ttgcagtggg gtggttatgt gcctgcaatc ccagagtgtc ctcgaaggac
 420
 ctcagatcta acgagctcag ccggcagctg cacgtgggac cagccctctg agcttcactt
 480
 gttttctctt gtgccatcag aaaccaatac gaagataaaa tgggaaaaaa aaaaatccca
 540
 ttcacggcac agcctgccga gaaacgcgt
 569

<210> 1222
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 1222
 Met Asn Thr Gln Arg Pro Ala Arg Arg Lys Glu Arg Arg Glu Arg Ile
 1 5 10 15
 Arg Arg Pro Thr Cys Gln Lys Gly Pro Leu Gln Trp Cys Gly Tyr Val
 20 25 30
 Pro Ala Ile Pro Glu Cys Pro Arg Arg Thr Ser Asp Leu Thr Ser Ser
 35 40 45
 Ala Gly Ser Cys Thr Trp Asp Gln Pro Ser Glu Leu His Leu Phe Ser
 50 55 60
 Ser Val Pro Ser Glu Thr Asn Thr Lys Ile Lys Trp Glu Lys Lys Lys
 65 70 75 80
 Ser His Ser Arg His Ser Leu Pro Arg Asn Ala
 85 90

<210> 1223
 <211> 450

<212> DNA

<213> Homo sapiens

<400> 1223

aagcttgctc aggctagtgc cgacgctgct gctctcaaac tcgtcgatgc ccaccgggtg
 60
 ttgtgcgctc accgagaggg gccatacggg gtagacgagt ggtctcagcg catgggtact
 120
 gtactttcag atgtgttgcc tgggtgtggc caaggccggg gggttctcgg cgaaactgca
 180
 atagtaacgc ataacctcgc acaattggga gtcaataacg gtgattgcgg ggtcatcggt
 240
 gaaacaaggc ccgtccccac gatagctcta ccgggacccg gtggagtccc cagacgggtg
 300
 ccctgttccc tcatcccatc gctgcaaccc ttacaggcga tgacgattca caaagcgag
 360
 ggcagccaat tcacggacgt aacggtggtc ctgccaccac ccgactcgcc cctcctctct
 420
 cgtgagttgc tctataccgc catcacgcgt
 450

<210> 1224

<211> 150

<212> PRT

<213> Homo sapiens

<400> 1224

Lys Leu Ala Gln Ala Ser Ala Asp Ala Ala Ala Leu Lys Leu Val Asp
 1 5 10 15
 Ala His Arg Leu Leu Cys Ala His Arg Glu Gly Pro Tyr Gly Val Asp
 20 25 30
 Glu Trp Ser Gln Arg Met Val Thr Val Leu Ser Asp Val Leu Pro Gly
 35 40 45
 Val Gly Gln Gly Arg Trp Val Leu Gly Glu Thr Ala Ile Val Thr His
 50 55 60
 Asn Leu Ala Gln Leu Gly Val Asn Asn Gly Asp Cys Gly Val Ile Val
 65 70 75 80
 Glu Thr Arg Pro Val Pro Thr Ile Ala Leu Pro Gly Pro Gly Gly Val
 85 90 95
 Pro Arg Arg Leu Pro Cys Ser Leu Ile Pro Ser Leu Gln Pro Leu Gln
 100 105 110
 Ala Met Thr Ile His Lys Ala Gln Gly Ser Gln Phe Thr Asp Val Thr
 115 120 125
 Val Val Leu Pro Pro Pro Asp Ser Pro Leu Leu Ser Arg Glu Leu Leu
 130 135 140
 Tyr Thr Ala Ile Thr Arg
 145 150

<210> 1225

<211> 436

<212> DNA

<213> Homo sapiens

<400> 1225

ncccatcccc caccgggat ggtgaacact gggatggcca cttgggagct caaagtgttg
 60
 tcagtgggag gacaaggtcc tcaattcctg gcacattggc ccagagaagt catgaaaacc
 120
 caaagcccc cgaagtaag aagtagaaaa aaacccgacc ccgaccagat gaagggacct
 180
 gggaagtgtt tggaaaagag actgctgaag tgtctccttg caggcatcac cgtgagctgg
 240
 ggctttgcac acagcatctt catggctttc cacaatgac ccagaactga tccagagaaa
 300
 cccagggatc aggggttgac ccgacctgt catcatccca ttctacaaat gaggacactg
 360
 aggcctggtg aaaagggagg ggtggatgga accaggtggc ctggctctaa gaccagagg
 420
 ctggagtgtg ctcatg
 436

<210> 1226

<211> 139

<212> PRT

<213> Homo sapiens

<400> 1226

Met	Val	Asn	Thr	Gly	Met	Ala	Thr	Trp	Glu	Leu	Lys	Val	Leu	Ser	Val
1				5				10					15		
Gly	Gly	Gln	Gly	Pro	Gln	Phe	Leu	Ala	His	Trp	Pro	Arg	Glu	Val	Met
		20						25					30		
Lys	Thr	Gln	Ser	Pro	Pro	Lys	Val	Arg	Ser	Arg	Lys	Lys	Pro	Asp	Pro
		35					40					45			
Asp	Gln	Met	Lys	Gly	Pro	Gly	Lys	Phe	Leu	Glu	Lys	Arg	Leu	Leu	Lys
		50					55				60				
Cys	Leu	Leu	Ala	Gly	Ile	Thr	Val	Ser	Trp	Gly	Phe	Ala	His	Ser	Ile
65					70					75				80	
Phe	Met	Ala	Phe	His	Asn	Asp	Pro	Arg	Thr	Asp	Pro	Glu	Lys	Pro	Arg
				85					90					95	
Asp	Gln	Gly	Leu	Thr	Arg	Pro	Cys	His	His	Pro	Ile	Leu	Gln	Met	Arg
			100						105				110		
Thr	Leu	Arg	Pro	Gly	Glu	Lys	Gly	Gly	Val	Asp	Gly	Thr	Arg	Trp	Pro
		115					120					125			
Gly	Ser	Lys	Thr	Gln	Arg	Leu	Glu	Cys	Ala	His					
		130					135								

<210> 1227

<211> 756

<212> DNA

<213> Homo sapiens

<400> 1227

gttgagttcc acgtgaaaca aaatgcactt tacaatagaa tgacgattcg tatcaaagat
 60
 aatgggtattg gaataccgat taacaaggta gataaaatct ttgatagatt ctaccgtgtc
 120
 gacaaagcac gtacacgtaa gatgggcggg acaggactag gtctagctat ttccaaagag
 180

attgtcgaag cacataatgg ccgtatttgg gcaaatagtg tcgaaggaca aggtacatct
 240
 atcttcatta ccctaccatg tgaaattatt gaagatggtg attgggatga atagtaaaga
 300
 atacatcaaa acgattatcc tgatactact tgtattaatg agtategtct taacctacat
 360
 ggtatggaac ttctcacctg atctatcaaa tgctgatagt acgtcatcag ataataagaa
 420
 agataattct aaacctattg gaaaaccaat gagtgcgaaa acggataaaa ccatcacacc
 480
 atttcaaadc gttcaatcta atggcgaaaa aacaaaagggt atgccagcaa caggatcatgc
 540
 agtatctcaa attttaagcc cattaagaaga taaaaatggt gattcagtag aacatttaaa
 600
 acgaaatcat aacttaatta ttctgaatt aagtataaac ttatcgttc ttgatttcac
 660
 atatgattta ccgttatcaa ttacttaag ccaagtatta aacatagatg ctaagacacc
 720
 taatcatttt aactttaatc gactactgat tgatca
 756

<210> 1228

<211> 97

<212> PRT

<213> Homo sapiens

<400> 1228

Val	Glu	Phe	His	Val	Lys	Gln	Asn	Ala	Leu	Tyr	Asn	Arg	Met	Thr	Ile
1				5					10					15	
Arg	Ile	Lys	Asp	Asn	Gly	Ile	Gly	Ile	Pro	Ile	Asn	Lys	Val	Asp	Lys
			20				25						30		
Ile	Phe	Asp	Arg	Phe	Tyr	Arg	Val	Asp	Lys	Ala	Arg	Thr	Arg	Lys	Met
		35				40						45			
Gly	Gly	Thr	Gly	Leu	Gly	Leu	Ala	Ile	Ser	Lys	Glu	Ile	Val	Glu	Ala
		50				55					60				
His	Asn	Gly	Arg	Ile	Trp	Ala	Asn	Ser	Val	Glu	Gly	Gln	Gly	Thr	Ser
65				70						75				80	
Ile	Phe	Ile	Thr	Leu	Pro	Cys	Glu	Ile	Ile	Glu	Asp	Gly	Asp	Trp	Asp
				85					90					95	

Glu

<210> 1229

<211> 377

<212> DNA

<213> Homo sapiens

<400> 1229

nacgcgtcgt gaacgcggcg tcaacagctt ttcggatata cctctgagga gcccaagatg
 60
 cttgtcgccc ccattggcaaa ccaggggggtc gaggccactg gagcgatggg aaccgacacc
 120
 ccgctggccg tgctatctaa ctgtccgcgg atgctctggg actatttcag tcagcttttc
 180

gctcaggtaa ccaatccgcc cttggacgct atccgcgagg agcttgtcac ctccctgacg
 240
 ggcaccatcg gcccgaggc gaacttgctt gagcctggcc cggaatcatg tcggcaagtg
 300
 gtcgtcaact acccgatcat cgattccgac cagcttgcca agatcattca catcgacgct
 360
 gacggggagc atccgga
 377

<210> 1230
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 1230
 Thr Arg Arg Gln Gln Leu Phe Gly Tyr Thr Ser Glu Glu Pro Lys Met
 1 5 10 15
 Leu Val Ala Pro Met Ala Asn Gln Gly Val Glu Ala Thr Gly Ala Met
 20 25 30
 Gly Thr Asp Thr Pro Leu Ala Val Leu Ser Asn Cys Pro Arg Met Leu
 35 40 45
 Trp Asp Tyr Phe Ser Gln Leu Phe Ala Gln Val Thr Asn Pro Pro Leu
 50 55 60
 Asp Ala Ile Arg Glu Glu Leu Val Thr Ser Leu Thr Gly Thr Ile Gly
 65 70 75 80
 Pro Glu Ala Asn Leu Leu Glu Pro Gly Pro Glu Ser Cys Arg Gln Val
 85 90 95
 Val Val Asn Tyr Pro Ile Ile Asp Ser Asp Gln Leu Ala Lys Ile Ile
 100 105 110
 His Ile Asp Ala Asp Gly Glu His Pro
 115 120

<210> 1231
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 1231
 aaatttcatt taaaatcaat tgattgctta aataaggcag ttcattctgct gcgccaggag
 60
 cggaagtaag gagtttttat ggcggtttta atcaccggag acgccggtta ttcggttct
 120
 cactgttc tggctttgtt agaacatggc gaagatgttg tagtgtaga taatttatca
 180
 aactcttccg atgagtctct gcgtcgcgtt gagaaactcg cgggtagaag tgctcagttc
 240
 taccaaggcg atatcttgga tgctgagtgt ctgcatcgca tcttcgaggc tcacgacatc
 300
 tcggctgtga tccattttgc tgggctaaag ggtgtcggag agtcgacgcg t
 351

<210> 1232
 <211> 91
 <212> PRT

<213> Homo sapiens

<400> 1232

```

Met Ala Val Leu Ile Thr Gly Asp Ala Gly Tyr Ile Gly Ser His Thr
 1           5           10           15
Val Leu Ala Leu Leu Glu His Gly Glu Asp Val Val Val Leu Asp Asn
 20           25           30
Leu Ser Asn Ser Ser Asp Glu Ser Leu Arg Arg Val Glu Lys Leu Ala
 35           40           45
Gly Arg Ser Ala Gln Phe Tyr Gln Gly Asp Ile Leu Asp Ala Glu Cys
 50           55           60
Leu His Arg Ile Phe Glu Ala His Asp Ile Ser Ala Val Ile His Phe
 65           70           75           80
Ala Gly Leu Lys Gly Val Gly Glu Ser Thr Arg
          85           90

```

<210> 1233

<211> 4982

<212> DNA

<213> Homo sapiens

<400> 1233

```

nnggcttaag cagtggtaac aacgcagagt acgcggggtg atggcctccc tgaaattaaa
60
catttctatt agtggcttcc cgtaaatctc atccttctta gatcaaacct cgttatatct
120
cctgcctatc tcttttgcac tccaaagttc agttttatta aatcccaggg tctaagattt
180
tttctttgag aatttatctc cagtgtttct atggaaatta aaaaagaaaa ttaggataat
240
tcaatgtcga aatgttgcac gcaccttttg agaaatttat attttgtagg ttgaaggact
300
tgcttttttg gcagcgtatt tttggagggtg gaatgtagtt attttaataa ccatgtccta
360
attatttata gcttcctgcc tgacacagct cacttcaaga agtgcacaat gtcagaacgt
420
ggaattaagt gggcttgtga atattgtacg tatgaaaact ggccatctgc aatcaagtgt
480
accatgtgtc gtgcccacaa acctagtggg acaattatta cagaagatcc atttaaaagt
540
ggttcaagtg atgttggtag agattgggat ccttccagca ccgaaggagg aagtagtcct
600
ttgatatgtc cagactctag tgcaagacca agggtgaaat cttcgtatag catggaaaat
660
gcaaataagt ggtcatgcca catgtgtaca tatttgaact ggccaagagc aatcagatgt
720
accagtgtc tatcccaacg taggaccagg agtcctacag aatctcctca gtcctcagga
780
tctggctcaa gaccagttgc tttttctgtt gatccttggt aggaatacaa tgatagaaat
840
aaactgaaca ctaggacaca gcaactggact tgctctgttt gcacatatga aaactgggcc
900
aaggctaaaa gatgtgttgt ttgtgatcat ccagaccta ataacattga agcaatagaa
960

```


ttggcagaga ctgaagagggc ttcttcaata ataaatgagc aagacagagc tcgatggagg
1020
ggaagttgca gtagtggttaa tagccaaagg agatcacctc ctgctacgaa gcgggactct
1080
gaagtgaana tggattttca gaggattgaa ttggctggtg ctgtgggaag caaggaggaa
1140
cttgaagtag actttaaaaa actaaagcaa attaaaaaca ggatgaaaaa gactgattgg
1200
ctcttcctca atgcttgtgt gggggttgta gaagggtgatt tagctgccat agaagcatac
1260
aagtcacagc gaggagacat tgcacgtcag ctcccgagc atgaagtacg cttgctgaat
1320
cgtccttctg cctttgatgt tggctatact cttgtacact tggctatacg ttttcagagg
1380
caggatatgc tagcaatatt gcttacagag gtgtctcaac aagcagcaaa gtgtattcca
1440
gcaatgggtg gtcctgaact gacagaacaa atccggagag agatagctgc ctctcttcat
1500
cagagaaagg gggattttgc ttgctatttt ctgactgacc ttgtaacatt tacattgcc
1560
gcagatatgg aagatttgcc cccaacagtc caagaaaaat tatttgatga ggtgcttgat
1620
agagacgttc aaaaagaatt agaagaagaa tctccaatta ttaactgggc cttggaattg
1680
gctacacgtt tggacagtcg actgtatgca ctttgggaacc ggactgcagg agactgccta
1740
cttgattcag ttctacaagc tacctggggc atctatgaca aggactcagt gcttcggaaa
1800
gccctgcatg acagcctgca tgactgttca cattgggttt acacacgctg gaaagattgg
1860
gaatcatggg attctcagag ctttgggtta catttttcct tgagagaaga acagtggcaa
1920
gaagactggg cattttatact ctctcttgct agtcagcctg gagcaagctt ggagcagacg
1980
cacatttttg tactggcaca tattcttaga cgaccaatta tagtttatgg agtaaaaat
2040
tacaagagtt tccggggaga aacttttaga tatactcggg ttcaaggtgt ttatctgcct
2100
ttgttggtgg aacagagttt ttgttggaag agtccgattg ctctgggtta tacgaggggc
2160
cacttctctg ctttgggtgc catggaaaat gatggctatg gcaaccgagg tgctgggtgc
2220
aatctcaata ccgatgatga tgtcaccatc acatttttgc ctctgggtga cagtgaagg
2280
aagctactcc atgtgcactt cctttctgct caggagctag gtaatgagga acagcaagaa
2340
aaactgctca gggagtggtt ggactgctgt gtgacggagg ggggagttct ggttgccatg
2400
cagaagagtt ctccggcgcg aaatcacccc ctggtcactc agatggtaga aaaatggctt
2460
gaccgctacc gacagatccg gccgtgtaca tccctgtctg atggagagga agatgaggat
2520
gatgaagatg aatgaaaaaa aaaatcaaac agcagaagac caaggcatca gatctgtaat
2580

gaccctaaag ttagtggtgt gctccaagca gagtcgacat catggaatga accaaatctg
2640
gcaggatctg ctcggggaag tgttttcctg gaccacacac accttatgga gataatgcct
2700
ctgctgctg aggagacaga gaacttttagt tggactacag tttgtaaaaa aaactaattt
2760
tattaagaca gaactttttt tccttccaaa ttgtaaatct gtctataaat gtaacgcatg
2820
tggttgtgta agacattggt taataggaaa agttgtacca gcatcttcat attattgaga
2880
aaattttttc cagcatgggc acttagaaaa agcacatggc aaatggctct ttgttccttt
2940
cagatattat ttcagtagaa cctggcattc tcctttcacc ttaaagatc catctaagtc
3000
tcagatctgg aaacgttttg taccgattat ccacagcaaa acaaaaataa gcttttattt
3060
tattaataat ttcgttcctc ttgtgcccaa tcaaactctt taggaacaaa ctgcaagaaa
3120
agctaagaat gtttttagagt gaactaaata cagacattgc ttacttggtt tgaagagggg
3180
tttggttttg gttatttgtt cttttaagtt ttctgatatg cccctttca atatttagat
3240
atttatttgt tgggaagaat accttaaaat gagggttctt attccagatt ctgggcagtg
3300
gtctgtgagt agtttttttc ctggatgaaa agggagcaag cccacttgtc actaaatgaa
3360
ttgtgtgaaa tgtgtcact tggactccat caacaatgtg ctgctcccag attgccatgc
3420
cagagggtct tcggattctt ccttctatca cctctgctct aagcaaactt tgtagaagg
3480
gcatgccttt gcttaggcag attgggaata ccaattcact acagaataaa gattttaaaa
3540
atgcaataag gtggcaaatg cattgtatga agaatttctc agtgtttagt ctgagaattt
3600
ttgcatgttg gttaattgtg gccattcttt aatttaaagt taaaactata atcttaggta
3660
gaaaaacttt ttataagaa gtattatttg accacttcag gtatacattc aatactgggt
3720
aaaaatttca gacctatctc aggaacacag aaatatttgg tgtcctgata agcactttct
3780
agactattga tgtggccagg aatttggaaa gacgacacac gcacgcacac acacacacac
3840
acacacacac acagtttttt ccttccctgt gatgaaaaag gctgtgaaaa ccttaaagta
3900
tttgcttgct tcttgttttg tttagttgat aatgaaatgt gtacaacctc aaatttgctg
3960
ccagaatact aaaaatagaa aaataccac aaaactgtca tgtcttttagt tctttccccc
4020
cgaaaactca gtaaaaagggt gttcccagga tgaaaagatc attttttgct gcatgctaaa
4080
tcttgtagga aaaatgattt tttagtagca ttctgtagaa atgaatcttt gatataatgt
4140
aaatgctgct gtttgtttca agtggtgaat gtgttgtaa aaattggctg tttgctttca
4200

ttttggccaa taagtaatca agtttgtaga aaatgtagc attctgacta cttagcatct
 4260
 gtagtaattt ctctatgtat agggataatt ttttagtggg cagagatcct gttctagtgt
 4320
 cctgtgaagc aaaatctgcc ctcccaattg aaaaagccaa agagaattgt tagagggaaa
 4380
 agcatgtagc cattgcagtc tgcattgcag ccagcgttgt ccagagagta cacgctcagc
 4440
 acttagcttc tactgtgtgt tgtggtctgg tgagtgttgt ttccctgag cgctctatta
 4500
 tttatttatt tattatcaat cagtgaccct gaccacatag tgtgataggt gcagcattct
 4560
 tccctgtggg aaagaattaa agatgggtcc atttcctagg ctacagacag gaatggggct
 4620
 ctaaagtgtt ttcatagact ggctgttaaa ggccaaaaat tttggtaaata caatgctata
 4680
 ttatgtcttt gaactattaa aacagccata attattgtcc caagatagat agaatatagt
 4740
 cctttttcaa agatgattat acgtggctag gtgacagaca ttaatgactg actctggaga
 4800
 gtaagtcata cctgcactct gtggacttga tgggtctttt tctagagcaa acagagcgtg
 4860
 gcattttgtt ttgacttggt cttccttggg gtcaaattta tatatatata tataaatttt
 4920
 tgtttgggcg accaagatct aataattaaa acccaggtgg accatggaaa aaaaaaaaaa
 4980
 aa
 4982

<210> 1234

<211> 708

<212> PRT

<213> Homo sapiens

<400> 1234

Met	Ser	Glu	Arg	Gly	Ile	Lys	Trp	Ala	Cys	Glu	Tyr	Cys	Thr	Tyr	Glu
1				5					10					15	
Asn	Trp	Pro	Ser	Ala	Ile	Lys	Cys	Thr	Met	Cys	Arg	Ala	Gln	Arg	Pro
			20					25					30		
Ser	Gly	Thr	Ile	Ile	Thr	Glu	Asp	Pro	Phe	Lys	Ser	Gly	Ser	Ser	Asp
	35					40					45				
Val	Gly	Arg	Asp	Trp	Asp	Pro	Ser	Ser	Thr	Glu	Gly	Gly	Ser	Ser	Pro
	50				55					60					
Leu	Ile	Cys	Pro	Asp	Ser	Ser	Ala	Arg	Pro	Arg	Val	Lys	Ser	Ser	Tyr
65				70				75						80	
Ser	Met	Glu	Asn	Ala	Asn	Lys	Trp	Ser	Cys	His	Met	Cys	Thr	Tyr	Leu
			85					90						95	
Asn	Trp	Pro	Arg	Ala	Ile	Arg	Cys	Thr	Gln	Cys	Leu	Ser	Gln	Arg	Arg
			100					105					110		
Thr	Arg	Ser	Pro	Thr	Glu	Ser	Pro	Gln	Ser	Ser	Gly	Ser	Gly	Ser	Arg
	115					120					125				
Pro	Val	Ala	Phe	Ser	Val	Asp	Pro	Cys	Glu	Glu	Tyr	Asn	Asp	Arg	Asn
	130					135					140				
Lys	Leu	Asn	Thr	Arg	Thr	Gln	His	Trp	Thr	Cys	Ser	Val	Cys	Thr	Tyr

145					150					155				160
Glu	Asn	Trp	Ala	Lys	Ala	Lys	Arg	Cys	Val	Val	Cys	Asp	His	Pro
				165						170				175
Pro	Asn	Asn	Ile	Glu	Ala	Ile	Glu	Leu	Ala	Glu	Thr	Glu	Glu	Ala
			180					185						190
Ser	Ile	Ile	Asn	Glu	Gln	Asp	Arg	Ala	Arg	Trp	Arg	Gly	Ser	Cys
	195					200						205		
Ser	Gly	Asn	Ser	Gln	Arg	Arg	Ser	Pro	Pro	Ala	Thr	Lys	Arg	Asp
	210				215						220			
Glu	Val	Lys	Met	Asp	Phe	Gln	Arg	Ile	Glu	Leu	Ala	Gly	Ala	Val
225					230					235				240
Ser	Lys	Glu	Glu	Leu	Glu	Val	Asp	Phe	Lys	Lys	Leu	Lys	Gln	Ile
				245				250						255
Asn	Arg	Met	Lys	Lys	Thr	Asp	Trp	Leu	Phe	Leu	Asn	Ala	Cys	Val
			260					265					270	
Val	Val	Glu	Gly	Asp	Leu	Ala	Ala	Ile	Glu	Ala	Tyr	Lys	Ser	Ser
		275					280					285		
Gly	Asp	Ile	Ala	Arg	Gln	Leu	Thr	Ala	Asp	Glu	Val	Arg	Leu	Leu
290					295					300				
Arg	Pro	Ser	Ala	Phe	Asp	Val	Gly	Tyr	Thr	Leu	Val	His	Leu	Ala
305					310					315				320
Arg	Phe	Gln	Arg	Gln	Asp	Met	Leu	Ala	Ile	Leu	Leu	Thr	Glu	Val
				325					330					335
Gln	Gln	Ala	Ala	Lys	Cys	Ile	Pro	Ala	Met	Val	Cys	Pro	Glu	Leu
		340						345					350	
Glu	Gln	Ile	Arg	Arg	Glu	Ile	Ala	Ala	Ser	Leu	His	Gln	Arg	Lys
		355					360					365		
Asp	Phe	Ala	Cys	Tyr	Phe	Leu	Thr	Asp	Leu	Val	Thr	Phe	Thr	Leu
370					375						380			
Ala	Asp	Ile	Glu	Asp	Leu	Pro	Pro	Thr	Val	Gln	Glu	Lys	Leu	Phe
385					390					395				400
Glu	Val	Leu	Asp	Arg	Asp	Val	Gln	Lys	Glu	Leu	Glu	Glu	Glu	Ser
				405					410					415
Ile	Ile	Asn	Trp	Ser	Leu	Glu	Leu	Ala	Thr	Arg	Leu	Asp	Ser	Arg
		420						425					430	
Tyr	Ala	Leu	Trp	Asn	Arg	Thr	Ala	Gly	Asp	Cys	Leu	Leu	Asp	Ser
		435					440					445		
Leu	Gln	Ala	Thr	Trp	Gly	Ile	Tyr	Asp	Lys	Asp	Ser	Val	Leu	Arg
	450					455				460				
Ala	Leu	His	Asp	Ser	Leu	His	Asp	Cys	Ser	His	Trp	Phe	Tyr	Thr
465					470					475				480
Trp	Lys	Asp	Trp	Glu	Ser	Trp	Tyr	Ser	Gln	Ser	Phe	Gly	Leu	His
				485					490					495
Ser	Leu	Arg	Glu	Gln	Trp	Gln	Glu	Asp	Trp	Ala	Phe	Ile	Leu	Ser
		500						505					510	
Leu	Ala	Ser	Gln	Pro	Gly	Ala	Ser	Leu	Glu	Gln	Thr	His	Ile	Phe
		515					520					525		
Leu	Ala	His	Ile	Leu	Arg	Arg	Pro	Ile	Ile	Val	Tyr	Gly	Val	Lys
	530					535					540			
Tyr	Lys	Ser	Phe	Arg	Gly	Glu	Thr	Leu	Gly	Tyr	Thr	Arg	Phe	Gln
545					550					555				560
Val	Tyr	Leu	Pro	Leu	Leu	Trp	Glu	Gln	Ser	Phe	Cys	Trp	Lys	Ser
				565					570					575
Ile	Ala	Leu	Gly	Tyr	Thr	Arg	Gly	His	Phe	Ser	Ala	Leu	Val	Ala

580 585 590
 Glu Asn Asp Gly Tyr Gly Asn Arg Gly Ala Gly Ala Asn Leu Asn Thr
 595 600 605
 Asp Asp Asp Val Thr Ile Thr Phe Leu Pro Leu Val Asp Ser Glu Arg
 610 615 620
 Lys Leu Leu His Val His Phe Leu Ser Ala Gln Glu Leu Gly Asn Glu
 625 630 635 640
 Glu Gln Gln Glu Lys Leu Leu Arg Glu Trp Leu Asp Cys Cys Val Thr
 645 650 655
 Glu Gly Gly Val Leu Val Ala Met Gln Lys Ser Ser Arg Arg Asn
 660 665 670
 His Pro Leu Val Thr Gln Met Val Glu Lys Trp Leu Asp Arg Tyr Arg
 675 680 685
 Gln Ile Arg Pro Cys Thr Ser Leu Ser Asp Gly Glu Glu Asp Glu Asp
 690 695 700
 Asp Glu Asp Glu
 705

<210> 1235
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 1235
 gcgtctcagg ccgtgnectca gatacctgtc gatatgacga ccttggggcgc tgatttggtg
 60
 gccttcaccg gtcacaagat gtgcggtccg acgggtatcg gcattctctg gggacgctat
 120
 gacctctctg ctgagctacc gcccttcctc ggaggcggcg agatgatcga ggtcgtgcgc
 180
 atggagggat cgacctacgc cgagcctcca catcgttttg aggcaggcac cccgccgac
 240
 gcacagctgg ctgccctcgg ggtggccgcc gactacctag atggcatcgg gatgcaggcc
 300
 atcgccgagc acgaacatga gctgggtgct cggatgctcg aagactacca gaccgtcaag
 360
 ggagtgcagc cggagagagg ctg
 383

<210> 1236
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 1236
 Ala Ser Gln Ala Val Xaa Gln Ile Pro Val Asp Met Thr Thr Leu Gly
 1 5 10 15
 Ala Asp Leu Val Ala Phe Thr Gly His Lys Met Cys Gly Pro Thr Gly
 20 25 30
 Ile Gly Ile Leu Trp Gly Arg Tyr Asp Leu Leu Ala Glu Leu Pro Pro
 35 40 45
 Phe Leu Gly Gly Gly Glu Met Ile Glu Val Val Arg Met Glu Gly Ser
 50 55 60
 Thr Tyr Ala Glu Pro Pro His Arg Phe Glu Ala Gly Thr Pro Pro Ile

65		70		75		80
Ala	Gln	Leu	Ala	Ala	Leu	Gly
			Val	Ala	Ala	Asp
				Tyr	Leu	Asp
					Gly	Ile
		85		90		95
Gly	Met	Gln	Ala	Ile	Ala	Glu
			His	Glu	His	Glu
				Leu	Ala	Ala
					Arg	Met
		100		105		110
Leu	Glu	Asp	Tyr	Gln	Thr	Val
			Lys	Gly	Val	Gln
				Pro	Glu	Arg
					Gly	
		115		120		125

<210> 1237

<211> 1608

<212> DNA

<213> Homo sapiens

<400> 1237

```

ccatggccga agggccatag tctacaggcc tcctttctac agcaaaacag agcttcagct
60
acaccagcac attctgactc aacatggcta tacgggtgtc atcgctgaag aaaggctcaa
120
tgctggccta gggccggggc tactagaaca aggtgatctg ggctcttggg atctgtcat
180
ttgctgtct tctaagaaag cagaaggaac accctgtata tccaaggaag tcatgtgcca
240
gttaggttta catcaaaagg caaacagatt accagaaata cagcagccac tttgcagaaa
300
ggaaggatta tgtcaaatag ttagaagatt ccagaactg caacttcag tgagtccctc
360
tgtgtgtctg gatcagggaa tgcaattaaa gccgagtact tcgagtcacc ttttaaaaac
420
agtgaagcca cgtgtgtgga aaccagggga ctggagtcgt gaacagctga atgaaacgac
480
agtccttgct ccacatgaaa caatctttcg agccaaagat ctatctgtga ttcttaaagc
540
gtatgtgttg gtgacgtcct taaccccttt gcgtgcattc attcattcga ctggcacagt
600
ttggaatcca ccaagaaaa aacgcttcac tgtcaagctg caaacatttt ttgagacatt
660
cctgagagcc agttcacctc aacaggcttt tgacattatg aaggaagcaa ttggcaaact
720
actgctagcc gctgaagtat tcagtgaac atctactctg ggaccaaaga cttccatag
780
atgcagattc tgctttcaac ttctaacttt tgatattggt tatggcagtt tcatgtaccc
840
tgtagtgctc caggtacacg agcattttaa ttttcaagat tatgataata tggattttga
900
ggacaaaaat acagaagaat tcctttttaa tgacactttc aattttctct tcctaatga
960
atcatcactt tccatatttt ctgagatatt tcagagactt tatagatcag atgttttcaa
1020
gggtgaaaac tatcaaaagg aactaaatca gtgtctgtcc ttagaagaaa ttaactcaat
1080
tatgactttc ataaaggaac ttggaagtct gggacaattc caactgctct tcccatctac
1140
tactcctggg attcagtcac tgatgcatga attttatgat gtggcaaact ctgtgggaaa
1200

```


tcctggctca gtcctgaccc aatactgggtc tcttttaa at gtatttgaac aatttcagtt
 1260
 catgaataaa aagacacagc cacatccact ggaatggaat tctttcacag aagataagaa
 1320
 cattgaaaaa ccacaagtgc catttgatgc aatagaaaat aaaaaagctg cagttccaca
 1380
 aattaaaaat gaaaataaag aaatacattg cagtgatgat gaaaacacac catgtcatat
 1440
 caagcagatc ttcacacatc cacatttgga actaaatcct gactttcatc caaagatcaa
 1500
 agattattac tgtgaagtcc catttgatgt ggtaacagtg acaattggag tggaaactcc
 1560
 taagtgtctg tgcaaggtgc acctgtacga gcaggcaggg ccaagctt
 1608

<210> 1238
 <211> 458
 <212> PRT
 <213> Homo sapiens

<400> 1238
 Met Cys Gln Leu Gly Leu His Gln Lys Ala Asn Arg Leu Pro Glu Ile
 1 5 10 15
 Gln Gln Pro Leu Cys Arg Lys Glu Gly Leu Cys Gln Ile Val Arg Arg
 20 25 30
 Phe Pro Glu Leu Gln Leu Pro Val Ser Pro Ser Val Cys Leu Asp Gln
 35 40 45
 Gly Met Gln Leu Lys Pro Ser Thr Ser Ser His Leu Leu Lys Thr Val
 50 55 60
 Lys Pro Arg Val Trp Lys Pro Gly Asp Trp Ser Arg Glu Gln Leu Asn
 65 70 75 80
 Glu Thr Thr Val Leu Ala Pro His Glu Thr Ile Phe Arg Ala Lys Asp
 85 90 95
 Leu Ser Val Ile Leu Lys Ala Tyr Val Leu Val Thr Ser Leu Thr Pro
 100 105 110
 Leu Arg Ala Phe Ile His Ser Thr Gly Thr Val Trp Asn Pro Pro Lys
 115 120 125
 Lys Lys Arg Phe Thr Val Lys Leu Gln Thr Phe Phe Glu Thr Phe Leu
 130 135 140
 Arg Ala Ser Ser Pro Gln Gln Ala Phe Asp Ile Met Lys Glu Ala Ile
 145 150 155 160
 Gly Lys Leu Leu Leu Ala Ala Glu Val Phe Ser Glu Thr Ser Thr Leu
 165 170 175
 Gly Pro Lys Thr Phe His Arg Cys Arg Phe Cys Phe Gln Leu Leu Thr
 180 185 190
 Phe Asp Ile Gly Tyr Gly Ser Phe Met Tyr Pro Val Val Leu Gln Val
 195 200 205
 His Glu His Leu Asn Phe Gln Asp Tyr Asp Asn Met Asp Phe Glu Asp
 210 215 220
 Gln Asn Thr Glu Glu Phe Leu Leu Asn Asp Thr Phe Asn Phe Leu Phe
 225 230 235 240
 Pro Asn Glu Ser Ser Leu Ser Ile Phe Ser Glu Ile Phe Gln Arg Leu
 245 250 255
 Tyr Arg Ser Asp Val Phe Lys Gly Glu Asn Tyr Gln Lys Glu Leu Asn


```
<210> 1239
<211> 447
<212> DNA
<213> Homo sapiens
```

```
<210> 1240
<211> 149
<212> PRT
<213> Homo sapiens
```


<400> 1240

Ile Pro Thr Glu Arg Glu Arg Thr Glu Arg Leu Ile Lys Thr Lys Leu
 1 5 10 15
 Arg Glu Ile Met Met Gln Lys Asp Leu Glu Asn Ile Thr Ser Lys Glu
 20 25 30
 Ile Arg Thr Glu Leu Glu Met Gln Met Val Cys Asn Leu Arg Glu Phe
 35 40 45
 Lys Glu Phe Ile Asp Asn Glu Met Ile Val Ile Leu Gly Gln Met Asp
 50 55 60
 Ser Pro Thr Gln Ile Phe Glu His Val Phe Leu Gly Ser Glu Trp Asn
 65 70 75 80
 Ala Ser Asn Leu Glu Asp Leu Gln Asn Arg Gly Val Arg Tyr Ile Leu
 85 90 95
 Asn Val Thr Arg Glu Ile Asp Asn Phe Phe Pro Gly Val Phe Glu Tyr
 100 105 110
 His Asn Ile Arg Val Tyr Asp Glu Glu Ala Thr Asp Leu Leu Ala Tyr
 115 120 125
 Trp Asn Asp Thr Tyr Lys Phe Ile Ser Lys Ala Lys Lys His Gly Ser
 130 135 140
 Lys Cys Leu Val His
 145

<210> 1241

<211> 489

<212> DNA

<213> Homo sapiens

<400> 1241

acgcgtgtgc agcgtatcca gcaccgtcct cagaataata gctgtgaaaa ggaggaaggg
 60
 aactaggcag acagaccgac agataggggg aaaccgggat gtttaatgtg tccgaacaag
 120
 taggaagatc aatgaggcgc gagtgtgtgt gtgtacgtgt gcgcgtgtgt gtgtgagaga
 180
 gagagaaaga aagaagaaag gtcccgattg caacgtgtca gatcttgcaa ctttcccccc
 240
 acccaacaca acaaccctca gacacaaaaa caccattgct gactgatacc ccaggctcttc
 300
 aggggttaaag gaaccgtgtg ttggcagcgc aattgtgcag acgctgtaag gccaaaacga
 360
 ggatttgtgt tgtgaggctg gtggtgcggt cttttcttct tcttctcgcc tgttttcccc
 420
 gagtgcctgg gttgcgagaa aggcgcacgc caggctgtgc agccgaatcg cttcgcaatt
 480
 attcatgct
 489

<210> 1242

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1242

Met Asn Asn Cys Glu Ala Ile Arg Leu His Ser Leu Arg Cys Ala Phe

1	5	10	15
Leu Ala Thr Gln Ala Leu Arg Glu Asn Arg Arg Glu Glu Lys Glu Lys			
	20	25	30
Asn Ala Pro Pro Thr Ser Gln His Lys Ser Ser Phe Trp Pro Tyr Ser			
	35	40	45
Val Cys Thr Ile Ala Leu Pro Thr His Gly Ser Phe Asn Pro Glu Asp			
	50	55	60
Leu Gly Tyr Gln Ser Ala Met Val Phe Leu Cys Leu Arg Val Val Val			
65	70	75	80
Leu Gly Gly Gly Lys Val Ala Arg Ser Asp Thr Leu Gln Ser Gly Pro			
	85	90	95
Phe Phe Phe Leu Ser Leu Ser Leu Thr His Thr Arg Ala His Val His			
	100	105	110
Thr His Thr Arg Ala Ser Leu Ile Phe Leu Leu Val Arg Thr His			
	115	120	125

<210> 1243

<211> 390

<212> DNA

<213> Homo sapiens

<400> 1243

ntagactccg tcgatcccct catggagaat ccagtgtgcc aggtcccttc ggcgactagg
60
gagatgatat acctaccggg aatgttccact gtctacttcg atggccagtt ctgggtcgga
120
gtcctagaga ggcgcgacga ggggttggtg cgtgccgtaa aagtcacggt tggcgccgaa
180
ccgtctgaca cggaattgta cgggtggggt agccgtcatg gcaacgcact tatagagcga
240
ttggagtcta ccgctgctgt ccctaccacc cgcagtcccc gagccaagcg actgaacccc
300
aagaggggcgt tacgagatgc agcgcgagct gcccaagcac accgtgccag cacgnccgca
360
caggccgcga ttaaggccga tcaggaagct
390

<210> 1244

<211> 130

<212> PRT

<213> Homo sapiens

<400> 1244

Xaa Asp Ser Val Asp Pro Leu Met Glu Asn Pro Val Cys Gln Val Pro			
1	5	10	15
Ser Ala Tyr Trp Glu Met Ile Tyr Leu Pro Gly Met Phe Thr Val Tyr			
	20	25	30
Phe Asp Gly Gln Phe Trp Val Gly Val Leu Glu Arg Arg Asp Glu Gly			
	35	40	45
Leu Val Arg Ala Val Lys Val Thr Phe Gly Ala Glu Pro Ser Asp Thr			
	50	55	60
Glu Leu Tyr Gly Trp Val Ser Arg His Gly Asn Ala Leu Ile Glu Arg			
65	70	75	80
Leu Glu Ser Thr Ala Ala Val Pro Thr Thr Arg Ser Pro Arg Ala Lys			


```

      85              90              95
Arg Leu Asn Pro Lys Arg Ala Leu Arg Asp Ala Ala Arg Ala Ala Gln
      100              105              110
Ala His Arg Ala Ser Thr Xaa Ala Gln Ala Ala Ile Lys Ala Asp Gln
      115              120              125
Glu Ala
      130

```

<210> 1245
 <211> 339
 <212> DNA
 <213> Homo sapiens

```

<400> 1245
gccaagcagc aaaaaccaca gatcattgct atgggaaatg tgtcattttc ttgttcacaa
60
ccacaatcta tgcccgtgac ttttctgagc tccaggagtt ttttagcact gccagacttc
120
tctggagagg aggagggtttc tgccactttt caatttcgaa cttggaataa ggcagggttc
180
ctgctgttca gtgaacttca gctgatttca gggggtatcc tcctctttct gagtgatgga
240
aaacttaagt cgaatctcta ccagccaaga aaattaccca gtgacatcac agcaggtgtc
300
gaattaaatg atgggcagtg gcattctgtc tctttatct
339

```

<210> 1246
 <211> 113
 <212> PRT
 <213> Homo sapiens

```

<400> 1246
Ala Lys Gln Gln Lys Pro Gln Ile Ile Ala Met Gly Asn Val Ser Phe
1      5      10      15
Ser Cys Ser Gln Pro Gln Ser Met Pro Val Thr Phe Leu Ser Ser Arg
      20      25      30
Ser Phe Leu Ala Leu Pro Asp Phe Ser Gly Glu Glu Glu Val Ser Ala
      35      40      45
Thr Phe Gln Phe Arg Thr Trp Asn Lys Ala Gly Leu Leu Leu Phe Ser
      50      55      60
Glu Leu Gln Leu Ile Ser Gly Gly Ile Leu Leu Phe Leu Ser Asp Gly
65      70      75      80
Lys Leu Lys Ser Asn Leu Tyr Gln Pro Arg Lys Leu Pro Ser Asp Ile
      85      90      95
Thr Ala Gly Val Glu Leu Asn Asp Gly Gln Trp His Ser Val Ser Leu
      100      105      110
Ser

```

<210> 1247
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 1247

ttgacctcca acccgggcac gcgcatacctg cccagatcc cgatggatgg gcatgacctc
 60
 aacccgggtgt ggcggggacgt cggcctgac gtgcacccgc cgatgctcta catgggctac
 120
 gtcggtttct ccgtaggctt tgcgtttgcc atcgccgctt tgctcggcgg gcgcctcgat
 180
 gcggcctggg cgcgctggtc gcggccatgg accattgtgg cctgggcgtt cctcggtatc
 240
 ggtatcacc cgggttcgtg gtgggcctac tacgaactcg gctggngcgg ctggtgggtc
 300
 tgggaccccg gggaaaaccc cttcttcagt ccttggtgg ggggcacccc gctgattcac
 360
 tcgctg
 366

<210> 1248

<211> 122

<212> PRT

<213> Homo sapiens

<400> 1248

Leu	Thr	Ser	Asn	Pro	Gly	Thr	Arg	Ile	Leu	Pro	Gln	Ile	Pro	Met	Asp
1				5					10					15	
Gly	His	Asp	Leu	Asn	Pro	Val	Trp	Arg	Asp	Val	Gly	Leu	Ile	Val	His
			20					25				30			
Pro	Pro	Met	Leu	Tyr	Met	Gly	Tyr	Val	Gly	Phe	Ser	Val	Ala	Phe	Ala
		35				40					45				
Phe	Ala	Ile	Ala	Ala	Leu	Leu	Gly	Gly	Arg	Leu	Asp	Ala	Ala	Trp	Ala
	50					55				60					
Arg	Trp	Ser	Arg	Pro	Trp	Thr	Ile	Val	Ala	Trp	Ala	Phe	Leu	Gly	Ile
65					70				75				80		
Gly	Ile	Thr	Leu	Gly	Ser	Trp	Trp	Ala	Tyr	Tyr	Glu	Leu	Gly	Trp	Xaa
			85					90					95		
Gly	Trp	Trp	Phe	Trp	Asp	Pro	Gly	Glu	Asn	Pro	Phe	Phe	Met	Pro	Trp
			100				105						110		
Leu	Gly	Gly	Thr	Pro	Leu	Ile	His	Ser	Leu						
		115					120								

<210> 1249

<211> 374

<212> DNA

<213> Homo sapiens

<400> 1249

acgcgtgtcc tcaacaccct ggcgccca g ctgattgccg tggaaccggt gccggcaatg
 60
 ggcgcgagct tgagcaagct gctgccggat gtgcacctgg tcaatggcac tgccgaggcc
 120
 attccactgg aaagcgccgt ggcggtatgcg gtggtgtgag cacaagcctt ccattggtt
 180
 tccagcgagg cggccctggc ggaaatccat cgggtactca aaccggatgg gcgcctgggg
 240

ctgggtgtgga atgtgcgcga cgagtcgggtg gattgggtcg ccgccattac tcaaattcatc
 300
 acgccttatg aaggcgacac gccgcgcttt cataccggcc gttggcgaga agccttcact
 360
 ggcgagtatt ttg
 374

<210> 1250

<211> 124

<212> PRT

<213> Homo sapiens

<400> 1250

Thr	Arg	Val	Leu	Asn	Thr	Leu	Ala	Pro	Thr	Leu	Ile	Ala	Val	Glu	Pro
1				5				10						15	
Val	Pro	Ala	Met	Gly	Ala	Gln	Leu	Ser	Lys	Leu	Leu	Pro	Asp	Val	His
		20						25					30		
Leu	Val	Asn	Gly	Thr	Ala	Glu	Ala	Ile	Pro	Leu	Glu	Ser	Ala	Val	Ala
		35					40					45			
Asp	Ala	Val	Val	Cys	Ala	Gln	Ala	Phe	His	Trp	Phe	Ser	Ser	Glu	Ala
		50				55					60				
Ala	Leu	Ala	Glu	Ile	His	Arg	Val	Leu	Lys	Pro	Asp	Gly	Arg	Leu	Gly
65				70						75				80	
Leu	Val	Trp	Asn	Val	Arg	Asp	Glu	Ser	Val	Asp	Trp	Val	Ala	Ala	Ile
			85						90					95	
Thr	Gln	Ile	Ile	Thr	Pro	Tyr	Glu	Gly	Asp	Thr	Pro	Arg	Phe	His	Thr
		100						105					110		
Gly	Arg	Trp	Arg	Glu	Ala	Phe	Thr	Gly	Glu	Tyr	Phe				
		115					120								

<210> 1251

<211> 742

<212> DNA

<213> Homo sapiens

<400> 1251

accggtctct tcttcggaaa ggcagggccg aggggcttgc ggggcagcca tggaggcgac
 60
 gcggaggcgg cagcacgtgg gagcgacggg cggcccaggc gcgcagttgg gcgcctcctt
 120
 ccctgcaggc caggcatggc tctgtgagcg ctgatgaggc tgcccgcacg gctcccttcc
 180
 acctcgacct ctggttctac ttcacactgc agaactgggt tctggacttt gggcgcccc
 240
 ttgccatgct ggtattccct ctcgagtggg ttccactcaa caagcccagt gttggggact
 300
 acttccacat ggcctacaac gtcatcacgc cttttctctt gctcaagctc atcgagcggg
 360
 cccccgcac cctgctacgc tccatcacgt acgtgagcat catcatcttc atcatgggtg
 420
 ccagcatcca cctgggtgggt gactctgtca accaccgct gctcttcagt ggctaccagc
 480
 accacctgtc tgtccgtgag aaccccatca tcaagaatct caagccggag acgctgatcg
 540

actcctttga gctgctctac tattatgatg agtacctggg tcaactgcatg tggtagatcc
 600
 ccttcttctc catcctcttc atgtacttca gcggtctctn ttactgcctc taaagctgag
 660
 agcttgattc cagggcctgc cctgctcctg gtggcaccca gtggcctgta ctactggtac
 720
 ctggtcaccg agggccagat ct
 742

<210> 1252

<211> 80

<212> PRT

<213> Homo sapiens

<400> 1252

Met	Arg	Leu	Pro	Ala	Arg	Leu	Pro	Ser	Thr	Ser	Thr	Ser	Gly	Ser	Thr
1				5					10					15	
Ser	His	Cys	Arg	Thr	Gly	Phe	Trp	Thr	Leu	Gly	Val	Pro	Leu	Pro	Cys
			20					25					30		
Trp	Tyr	Ser	Leu	Ser	Ser	Gly	Phe	His	Ser	Thr	Ser	Pro	Val	Leu	Gly
		35				40						45			
Thr	Thr	Ser	Thr	Trp	Pro	Thr	Thr	Ser	Ser	Arg	Pro	Phe	Ser	Cys	Ser
	50					55					60				
Ser	Ser	Ser	Ser	Gly	Pro	Pro	Ala	Pro	Cys	Tyr	Ala	Pro	Ser	Arg	Thr
65					70					75					80

<210> 1253

<211> 675

<212> DNA

<213> Homo sapiens

<400> 1253

gggccccctc ccaggcgctt tctgggagct tttagaactg cgctctgaag tttccagaga
 60
 gcgaggagct tttgcggcag gcagagacaa tggaagaaaa tgaaagccag aaatgtgagc
 120
 cgtgccttcc ttactcagca gacagaagac agatgcagga acaaggcaaa ggcaatctgc
 180
 atgtaacatc accagaagat gcagaatgcc gcagaaccaa ggaacgcctt tctaattgaa
 240
 acagtctgtg ttcagtttcc aagtcttccc gcaatatccc aaggagacac accctagggg
 300
 ggccccgaag ttccaaggaa atactgggaa tgcaaaccatc tgagatggat cggaagagag
 360
 gaaaaagcgt tcctagaaca tctgaagcag aagtaccccc accacgcctc tgcaatcatg
 420
 ggtcaccaag agaggctgag agaccagaca aggatcccca aactgtctca cagtctctca
 480
 ccacccagtg tgggtgaccc ggtcgagcat ttatcagaga cgtccgctga ttctttggaa
 540
 gccatgtctg agggggatgc tccaaccctt tttccagag gcagccggac tcgtgcgagc
 600
 cttcctgtgg tgaggtcaac caaccagacg aaagaaagat ctctgggggt tctctatctc
 660

cagtatggag atgaa
675

<210> 1254

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1254

Met	Gly	His	Gln	Glu	Arg	Leu	Arg	Asp	Gln	Thr	Arg	Ile	Pro	Lys	Leu
1				5					10					15	
Ser	His	Ser	Pro	Gln	Pro	Pro	Ser	Val	Gly	Asp	Pro	Val	Glu	His	Leu
			20					25					30		
Ser	Glu	Thr	Ser	Ala	Asp	Ser	Leu	Glu	Ala	Met	Ser	Glu	Gly	Asp	Ala
		35					40					45			
Pro	Thr	Pro	Phe	Ser	Arg	Gly	Ser	Arg	Thr	Arg	Ala	Ser	Leu	Pro	Val
	50					55				60					
Val	Arg	Ser	Thr	Asn	Gln	Thr	Lys	Glu	Arg	Ser	Leu	Gly	Val	Leu	Tyr
65				70						75				80	
Leu	Gln	Tyr	Gly	Asp	Glu										
						85									

<210> 1255

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1255

ncgccgatta ccaaggctat ggatgtgtgg gccttggggcg taacgctata ctgtctgctg
60
ttcgggtcgag tgccatttga tgcagagacg gagtacttgc tgctggaaag tatectgcat
120
gacgattatg ccgtcccgac gcacatgggt agcgaccgcg tgttggtagg cccgcgacca
180
gcacgttggc cctcgtcgca agagacgccc aacgtgccgc tgtccggcga ggcgcatgca
240
gtacgccatc tgctcgatgc ctttctcgac aaggatccag cgacgcgcct cactctcgat
300
cgtgttataa cacacccatg gctcgtggca gagtcattgt aatagtagca attgtatata
360
ccctcatcac caagatggcc aaagcggtag aaggcccgcg g
401

<210> 1256

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1256

Xaa	Pro	Ile	Thr	Lys	Ala	Met	Asp	Val	Trp	Ala	Leu	Gly	Val	Thr	Leu
1				5					10					15	
Tyr	Cys	Leu	Leu	Phe	Gly	Arg	Val	Pro	Phe	Asp	Ala	Glu	Thr	Glu	Tyr
			20					25					30		
Leu	Leu	Leu	Glu	Ser	Ile	Leu	His	Asp	Asp	Tyr	Ala	Val	Pro	Thr	His

[illegible]

```
<210> 1257
<211> 294
<212> DNA
<213> Homo sapiens
```

```
<400> 1257
cgctacagc tgattgaagg tgatgtcgcc aacgccgacc tgggtggcgca agccgccatc
60
ggcgccacgg cggtggtgca tttggcagcg gtggcttcgg tgcaagcctc ggtggatgac
120
ccggtcagca cgcgccagag caattttgtc ggcaccttga atgtctgcga agccatgcgc
180
aaggccggtg tgaagcgtgt ggtatttget tccagcgttg cggtgtatgg caacaatggc
240
gagggcgctt cgattgacga agagaccatc aaggccccgc tgacgcctta cgcg
294
```

```
<210> 1258
<211> 98
<212> PRT
<213> Homo sapiens
```

```

<400> 1258
Arg Val Gln Leu Ile Glu Gly Asp Val Ala Asn Ala Asp Leu Val Ala
 1              5              10              15
Gln Ala Ala Ile Gly Ala Thr Ala Val Val His Leu Ala Ala Val Ala
      20              25              30
Ser Val Gln Ala Ser Val Asp Asp Pro Val Ser Thr Arg Gln Ser Asn
      35              40              45
Phe Val Gly Thr Leu Asn Val Cys Glu Ala Met Arg Lys Ala Gly Val
      50              55              60
Lys Arg Val Val Phe Ala Ser Ser Val Ala Val Tyr Gly Asn Asn Gly
65              70              75              80
Glu Gly Ala Ser Ile Asp Glu Glu Thr Ile Lys Ala Pro Leu Thr Pro
      85              90              95
Tyr Ala

```

```
<210> 1259
<211> 417
<212> DNA
<213> Homo sapiens
```


<400> 1259

nnacactcta gcctctgact caaggaagct gcccagggtc ttgcccttcg gtttgggggg
60
atcccgtctc ccttcgtctg gagcagacat agtgagaacg tgagaagctg caggcgtggc
120
ctcacctggg tgtgttccaa gatgtccagg gccaaaggatg ccgtgtcctc cggggtggcc
180
agcgtgggtg acgtggctaa gggagtgggtc caggaggaggc tggacaccac tcgggtctgca
240
cttacgggca ccaaggaggc ggtgtccagc ggggtcacag gggccatgga catggctaag
300
ggggccgtcc aaggggggtct ggacacctcg aaggctgtcc tcaccggcac caaggacacg
360
gtgtccactg ggctcacggg ggcagtgaat gtggccaaag ggcccgtaca ggccggc
417

<210> 1260

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1260

Leu	Lys	Glu	Ala	Ala	Gln	Gly	Leu	Ala	Leu	Arg	Phe	Gly	Gly	Ile	Pro
1				5					10					15	
Ser	Pro	Phe	Val	Trp	Ser	Arg	His	Ser	Glu	Asn	Val	Arg	Ser	Cys	Arg
			20					25					30		
Arg	Gly	Leu	Thr	Val	Val	Cys	Ser	Lys	Met	Ser	Arg	Ala	Lys	Asp	Ala
		35					40					45			
Val	Ser	Ser	Gly	Val	Ala	Ser	Val	Val	Asp	Val	Ala	Lys	Gly	Val	Val
		50				55				60					
Gln	Gly	Gly	Leu	Asp	Thr	Thr	Arg	Ser	Ala	Leu	Thr	Gly	Thr	Lys	Glu
65					70					75				80	
Ala	Val	Ser	Ser	Gly	Val	Thr	Gly	Ala	Met	Asp	Met	Ala	Lys	Gly	Ala
				85					90					95	
Val	Gln	Gly	Gly	Leu	Asp	Thr	Ser	Lys	Ala	Val	Leu	Thr	Gly	Thr	Lys
				100				105					110		
Asp	Thr	Val	Ser	Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly
		115				120						125			
Pro	Val	Gln	Ala	Gly											
				130											

<210> 1261

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1261

ngtcacgtg ccgttcggca tcaggagatg aacatggatt tgaacgctga agtcgatcag
60
ctggtccgcc aatcccagac ctggatcccc ttgatcatgg agtacggcag ccgcctgctg
120tgaccctggc ggtcggctgg tggatcgaca acaaggtcag cgcccgcctg 180
ggcaaaactgg taggcctgcg caacgccgac ctggcactgc aaggctttat cagcaccttg
240

tcgaacatcg ggctgaaagt gctgctgttc gtcagtgtgg cgtcgatgat cggcattgag
 300
 accacctcgt tcgtcgcgga catcggtgct
 330

<210> 1262

<211> 110

<212> PRT

<213> Homo sapiens

<400> 1262

Xaa	Ala	Arg	Ala	Val	Arg	His	Gln	Glu	Met	Asn	Met	Asp	Leu	Asn	Ala
1				5					10					15	
Glu	Val	Asp	Gln	Leu	Val	Arg	Gln	Ser	Gln	Thr	Trp	Ile	Pro	Leu	Ile
		20						25					30		
Met	Glu	Tyr	Gly	Ser	Arg	Leu	Leu	Leu	Ala	Leu	Leu	Thr	Leu	Ala	Val
	35					40						45			
Gly	Trp	Trp	Ile	Asp	Asn	Lys	Val	Ser	Ala	Arg	Leu	Gly	Lys	Leu	Val
	50				55					60					
Gly	Leu	Arg	Asn	Ala	Asp	Leu	Ala	Leu	Gln	Gly	Phe	Ile	Ser	Thr	Leu
65			70						75					80	
Ser	Asn	Ile	Gly	Leu	Lys	Val	Leu	Leu	Phe	Val	Ser	Val	Ala	Ser	Met
		85						90					95		
Ile	Gly	Ile	Glu	Thr	Thr	Ser	Phe	Val	Ala	Asp	Ile	Gly	Ala		
		100						105					110		

<210> 1263

<211> 351

<212> DNA

<213> Homo sapiens

<400> 1263

acgcgtggac gatggacttc gtcgggtctgc ggtacgacga agggctcaac attgccgggtg
 60
 gcatcgatga tgagtttgct cgcctgggca acacctagca gcaatggcat cgatagtccc
 120
 tgcccagcct gtcctatttc gacgacgatg gtcgccgggt tcagtttctt ctcgctccac
 180
 gtcaacagac cgtcaccgtg gttgacgata tcgccggtgg aggcgtcctt gacgacgata
 240
 tggccacgcg ccaggggaata catctcccca tccaccctaaa agaacgcccc caagctggggc
 300
 atcttggcca gcccgatgat cgagagggtt tcaacaagcg actcgggata c
 351

<210> 1264

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1264

Met	Pro	Ser	Leu	Gly	Ala	Phe	Phe	Trp	Val	Asp	Gly	Glu	Met	Tyr	Ser
1				5					10					15	
Leu	Ala	Arg	Gly	Gln	Ile	Val	Val	Lys	Asp	Ala	Ser	Thr	Gly	Glu	Ile


```

      20      25      30
Val Asn His Gly Asp Gly Leu Leu Thr Trp Ser Glu Lys Lys Leu Asn
      35      40      45
Pro Ala Thr Ile Val Val Glu Met Glu Gln Ala Gly Gln Gly Leu Ser
      50      55      60
Met Pro Leu Leu Leu Gly Val Ala Gln Ala Ser Lys Leu Ile Ile Asp
      65      70      75      80
Ala Thr Gly Asn Val Glu Pro Phe Val Val Pro Gln Thr Asp Glu Val
      85      90      95
His Arg Pro Arg
      100

```

<210> 1265
 <211> 318
 <212> DNA
 <213> Homo sapiens

```

<400> 1265
accggtgtat gcaactgaaa tgctgtccga tatgcctgcg ctccagctcg tgaatcgaaa
60
gttggataac gctcgcttgg tggaatcgtc gctacggaag cttatcaagg atacggatgc
120
tgctgcaccg ccaaaattat ggacgcccc cgacccact cgctctgacg ataccattgc
180
acagccgaaa gtgcaaccag cccaagcagt gggagatgac tcgatcatgt cggtcgatga
240
gcctgatgca accgtccatg acatgccact caccacgaca ctcgacaacg tgggtcgctc
300
agatccatcg cgacgcgt
318

```

<210> 1266
 <211> 99
 <212> PRT
 <213> Homo sapiens

```

<400> 1266
Met Leu Ser Asp Met Pro Ala Leu Gln Leu Val Asn Arg Lys Leu Asp
1      5      10      15
Asn Ala Arg Leu Val Glu Ser Ser Leu Arg Lys Leu Ile Lys Asp Thr
      20      25      30
Asp Ala Ala Ala Pro Pro Lys Leu Trp Thr Pro Pro Asp Pro Thr Arg
      35      40      45
Ser Asp Asp Thr Ile Ala Gln Pro Lys Val Gln Pro Ala Gln Ala Val
      50      55      60
Gly Asp Asp Ser Ile Met Ser Val Asp Glu Pro Asp Ala Thr Val His
      65      70      75      80
Asp Met Pro Leu Thr Thr Thr Leu Asp Asn Val Gly Arg Ser Asp Pro
      85      90      95
Ser Arg Arg

```

<210> 1267
 <211> 343

<212> DNA

<213> Homo sapiens

<400> 1267

nggacatttg tgggaaatgc cccacagcct gtgtttttat tccccttggtg aacacttggtg
 60
 ggaactgtcc cacggcccgt gtttctgtgc gcctgcagac actcgtggga aatgccccac
 120
 aacctgtgtt tttgttcccc ttgtgaacac tcgtgggaaa tgccccacaa cctgtgtttt
 180
 tattccccctt gtgaacactc gtgggaaatg tcccatggcc cgtgtttccg tgcacctgcg
 240
 gatactcatc aaacaccagg ctgtcattgg ggacaggggtg agctctggct gttggtgcag
 300
 catggttagga agagcaccaa gtccctggact ctgttgattt ata
 343

<210> 1268

<211> 106

<212> PRT

<213> Homo sapiens

<400> 1268

Met	Pro	His	Ser	Leu	Cys	Phe	Tyr	Ser	Pro	Cys	Glu	His	Leu	Trp	Glu
1				5				10					15		
Leu	Ser	His	Gly	Pro	Cys	Phe	Cys	Ala	Pro	Ala	Asp	Thr	Arg	Gly	Lys
			20					25					30		
Cys	Pro	Thr	Thr	Cys	Val	Phe	Val	Pro	Leu	Val	Asn	Thr	Arg	Gly	Lys
			35					40					45		
Cys	Pro	Thr	Thr	Cys	Val	Phe	Ile	Pro	Leu	Val	Asn	Thr	Arg	Gly	Lys
			50				55				60				
Cys	Pro	Met	Ala	Arg	Val	Ser	Val	His	Leu	Arg	Ile	Leu	Ile	Lys	His
65					70					75				80	
Gln	Ala	Val	Ile	Gly	Asp	Arg	Val	Ser	Ser	Gly	Cys	Trp	Cys	Ser	Met
				85					90					95	
Val	Gly	Arg	Ala	Pro	Ser	Pro	Gly	Leu	Cys						
			100					105							

<210> 1269

<211> 391

<212> DNA

<213> Homo sapiens

<400> 1269

tcgcgatccg gagcgatcgg tgctgcagat ggctggcgac gccctgcggg gcgcattgctg
 60
 ggacgccgac ctggagccgg ccgccctaga cgggctgac gtccagggtgg ggtccccccg
 120
 cggcgccgac tacgacaccg tgtccgaaac ctttgggtctt tcgccacaat tctgcagcca
 180
 gacctggggc gcacggccgg ttcaccgcaa cgggtgacct ggcagcggcc atggcggtgt
 240
 ccagcggcct cgcgcggcgg gtggcttgcc tcatgggcat gaagaattcg gacctcgggc
 300

ggttggtga ggcggacaat ccctttcatc atgagcaatt ccgggagaat ggcgggccc
 360
 acggggaaga gggttggatc ggcattggcct c
 391

<210> 1270
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 1270
 Met Met Lys Gly Ile Val Arg Leu Thr Gln Pro Pro Glu Val Arg Ile
 1 5 10 15
 Leu His Ala His Glu Ala Ser His Pro Pro Arg Glu Ala Ala Gly His
 20 25 30
 Arg His Gly Arg Cys Gln Asp His Arg Cys Gly Glu Pro Ala Val Arg
 35 40 45
 Pro Arg Ser Gly Cys Arg Ile Val Ala Lys Asp Gln Arg Phe Arg Thr
 50 55 60
 Arg Cys Arg Ser Pro Arg Arg Gly Gly Thr Pro Gly Arg Ser Ala
 65 70 75 80
 Arg Leu Gly Arg Pro Ala Pro Gly Arg Arg Pro Ala Met Arg Pro Ala
 85 90 95
 Gly Arg Arg Gln Pro Ser Ala Ala Pro Ile Ala Pro Asp Arg
 100 105 110

<210> 1271
 <211> 661
 <212> DNA
 <213> Homo sapiens

<400> 1271
 acgcgtcggtt actggccacc tgcgagcgca ccagggtagg cagcactcgg tctccgtcga
 60
 accagaaagc gtcattcggg tggtgaacga gaacgggcga tgttggtggtg ggacggataa
 120
 cccccggttg cgtcaccata tggcccaacta aagagttcac cagggttgat ttaccagccc
 180
 cggtcgaccc tcctaccacc gccagaagcg gcgcatcaat agtctctaag cgcggcaaaa
 240
 tatagtcggtt aagctggtta gcgatgcgtc gtgccagccc ggcctgagta atagcctccg
 300
 gcaaattccaa ggggaactgg gcctgacgca ggttggtgccc cagatcggtc aacgacagca
 360
 gtatctgctc agtggtcatg gtgattcttc ctggtcactc gtcaggcctg tggcggcgcc
 420
 cactgcaact cgttggtgac cggctgggtg cgacgtcgct tgaggaaatgc gggcagtctc
 480
 ggcttcgaca atttggcacc tcgggcgacg gtgatagccg ccgggcgcag cacgttcata
 540
 cgggttgatga gctcgatctg aagcggacca ggatcatcgt ccaacccacg cacaatggcg
 600
 tcacgaagat aagcaagatc tgtcccaacg cgcaggaact ctaacgtgtg ccaccaccgg
 660

t

661

<210> 1272

<211> 126

<212> PRT

<213> Homo sapiens

<400> 1272

```

Met Asn Thr Glu Gln Ile Leu Leu Ser Leu Thr Asp Leu Arg His Asn
 1             5             10             15
Leu Arg Gln Ala Gln Phe Pro Leu Asp Leu Pro Glu Ala Ile Thr Gln
      20             25             30
Ala Gly Leu Ala Arg Arg Ile Ala Asn Gln Leu Asn Asp Tyr Ile Leu
      35             40             45
Pro Arg Leu Glu Thr Ile Asp Ala Pro Leu Leu Ala Val Val Gly Gly
      50             55             60
Ser Thr Gly Ala Gly Lys Ser Thr Leu Val Asn Ser Leu Val Gly His
65             70             75             80
Met Val Thr Gln Pro Gly Val Ile Arg Pro Thr Thr Thr Ser Pro Val
      85             90             95
Leu Val His His Pro Asp Asp Ala Phe Trp Phe Asp Gly Asp Arg Val
      100            105            110
Leu Pro Thr Leu Val Arg Ser Gln Val Ala Ser Asn Asp Ala
      115            120            125

```

<210> 1273

<211> 489

<212> DNA

<213> Homo sapiens

<400> 1273

```

gccggcgaga ccggtgccgg aaagaccatg gtggtcaccg gtattggttt gctgctcggc
60
gacaaggctg acactggatt ggtccggcat ggctgcgacg gtgccgtcgt cgaagccgtt
120
ctcgacacgc ctgatgccgg tcgctgcagc gagcttggcg gaacagtcga ggatggtgag
180
gttatctgcg ctcgacacat cagagtcgt cgctctcgag cgctgcttgg aggagctcaa
240
gttaccgcta gtcagctggc ccacatcggt ggggatcagg tgaccatcca tggccaatct
300
gaacaagtga ggttggtcga cgcagcgcgg cagctcgacg tcgttgaccg ggctgccgga
360
gatgagctgg caggctacct aagtcgacat gcacagctgt ggtcggagtt tcgtgctgca
420
tcccagcgtc ttcagcgcct caacgaggat cgcgctgggg ccgagatgga acgcgaggtg
480
cttacgcgt
489

```

<210> 1274

<211> 163

<212> PRT

<213> Homo sapiens

<400> 1274

Ala Gly Glu Thr Gly Ala Gly Lys Thr Met Val Val Thr Gly Ile Gly
 1 5 10 15
 Leu Leu Leu Gly Asp Lys Ala Asp Thr Gly Leu Val Arg His Gly Cys
 20 25 30
 Asp Arg Ala Val Val Glu Ala Val Leu Asp Thr Pro Asp Ala Gly Arg
 35 40 45
 Val Ser Glu Leu Gly Gly Thr Val Glu Asp Gly Glu Val Ile Cys Ala
 50 55 60
 Arg His Ile Thr Ser Arg Arg Ser Arg Ala Leu Leu Gly Gly Ala Gln
 65 70 75 80
 Val Thr Ala Ser Gln Leu Ala His Ile Val Gly Asp Gln Val Thr Ile
 85 90 95
 His Gly Gln Ser Glu Gln Val Arg Leu Val Asp Ala Ala Arg Gln Leu
 100 105 110
 Asp Val Val Asp Arg Ala Ala Gly Asp Glu Leu Ala Gly Tyr Leu Ser
 115 120 125
 Arg His Ala Gln Leu Trp Ser Glu Phe Arg Ala Ala Ser Gln Arg Leu
 130 135 140
 Gln Arg Leu Asn Glu Asp Arg Ala Gly Ala Glu Met Glu Arg Glu Val
 145 150 155 160
 Leu Thr Arg

<210> 1275

<211> 384

<212> DNA

<213> Homo sapiens

<400> 1275

nngctagcaa gtgcaagtac gagcaaaagt tatcagcaac agcgggaggc tgaacttctc
 60
 gtcgcacggc tagaggggga aatgcacgca cacagcgacc cgaccccgtc gccacaacca
 120
 cccgaggatg cagggttgat tgatgttgcc ctgaaagagg cgaagaaagc ctttgatgaa
 180
 ggcaaggctg atctaattgga taaactcaat caggagatac ttgcctggc aaacgaattc
 240
 ggtgcgctcg ggcttgaatc tattgagctt ggctccgacg cgaagatggc agtacgcaaa
 300
 ggcaatcaga aatcagcgtt cagcaggctg actcccggtg aacgtctcag gctgcgcatt
 360
 gctacagcca tcgcgttggt acgc
 384

<210> 1276

<211> 128

<212> PRT

<213> Homo sapiens

<400> 1276

Xaa Leu Ala Ser Ala Ser Thr Ser Lys Ser Tyr Gln Gln Gln Arg Glu


```

      1           5           10           15
Ala Glu Leu Leu Val Ala Arg Leu Glu Gly Glu Met His Ala His Ser
      20           25           30
Asp Pro Thr Pro Ser Pro Gln Pro Pro Glu Asp Ala Gly Leu Ile Asp
      35           40           45
Val Ala Leu Lys Glu Ala Lys Lys Ala Phe Asp Glu Gly Lys Val Asp
      50           55           60
Leu Met Asp Lys Leu Asn Gln Glu Ile Leu Arg Leu Ala Asn Glu Phe
      65           70           75           80
Gly Ala Leu Gly Leu Glu Ser Ile Glu Leu Gly Ser Asp Ala Lys Met
      85           90           95
Ala Val Arg Lys Gly Asn Gln Lys Ser Ala Phe Ser Arg Leu Thr Pro
      100           105           110
Gly Glu Arg Leu Arg Leu Arg Ile Ala Thr Ala Ile Ala Leu Leu Arg
      115           120           125

```

<210> 1277

<211> 392

<212> DNA

<213> Homo sapiens

<400> 1277

```

cagtttcagc cccgctgtgt gtccccaatt cctgtctctc ctaccagccg gattcagaac
60
ccagtggctt tcctcagctc tggtctgcct tctctccctg ccattcccacc cacaaatgcc
120
atggggctgc ctagaagtgc accatccatg ccattcccagg gattagcgaa gaaaaatata
180
aagtctcctc aaccagtga tgaatgataac attcgtgaaa ctaagaacgc agtgattcga
240
gacttgggga aaaaaataac tttcagtgat gtcagaccaa accagcagga gtacaaaatt
300
tcaagctttg agcagaggct gatgaatgaa atagagtttc gcttggaaac tactcctgtt
360
gatgaatcac atgatgaaat tcaacatgat gg
392

```

<210> 1278

<211> 130

<212> PRT

<213> Homo sapiens

<400> 1278

```

Gln Phe Gln Pro Arg Cys Val Ser Pro Ile Pro Val Ser Pro Thr Ser
1           5           10           15
Arg Ile Gln Asn Pro Val Ala Phe Leu Ser Ser Val Leu Pro Ser Leu
      20           25           30
Pro Ala Ile Pro Pro Thr Asn Ala Met Gly Leu Pro Arg Ser Ala Pro
      35           40           45
Ser Met Pro Ser Gln Gly Leu Ala Lys Lys Asn Thr Lys Ser Pro Gln
      50           55           60
Pro Val Asn Asp Asp Asn Ile Arg Glu Thr Lys Asn Ala Val Ile Arg
      65           70           75           80
Asp Leu Gly Lys Lys Ile Thr Phe Ser Asp Val Arg Pro Asn Gln Gln

```


85 90 95
 Glu Tyr Lys Ile Ser Ser Phe Glu Gln Arg Leu Met Asn Glu Ile Glu
 100 105 110
 Phe Arg Leu Glu Arg Thr Pro Val Asp Glu Ser His Asp Glu Ile Gln
 115 120 125
 His Asp
 130

<210> 1279
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 1279
 atggagtcgc agactctccg ccacatgatc gaggacgact gcgccgacaa cggcatccca
 60
 ctccccaaacg tcaactccag gatcctctct aagggtcatcg agtactgcaa cagtcacgtc
 120
 cagcgccgccc ccaaaccgcc tgactccgct gcctccgagg gcggcgagga cctcaagagc
 180
 tgggacgcga agttcgtcaa ggtggaccag gctacgtctt tcgacctcat cctgggtgcc
 240
 aactatctga acatcaaggg attgctggac ctgacctgcc agacgggtgc tgacatg
 297

<210> 1280
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 1280
 Met Glu Ser Gln Thr Leu Arg His Met Ile Glu Asp Asp Cys Ala Asp
 1 5 10 15
 Asn Gly Ile Pro Leu Pro Asn Val Asn Ser Arg Ile Leu Ser Lys Val
 20 25 30
 Ile Glu Tyr Cys Asn Ser His Val His Ala Ala Ala Lys Pro Ala Asp
 35 40 45
 Ser Ala Ala Ser Glu Gly Gly Glu Asp Leu Lys Ser Trp Asp Ala Lys
 50 55 60
 Phe Val Lys Val Asp Gln Ala Thr Leu Phe Asp Leu Ile Leu Ala Ala
 65 70 75 80
 Asn Tyr Leu Asn Ile Lys Gly Leu Leu Asp Leu Thr Cys Gln Thr Gly
 85 90 95
 Ala Asp Met

<210> 1281
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 1281
 acgcgtgaag ggggctttgg aggggatggc ttctggactg cacgatgggt gaacacagtt
 60

ttttaaactc ttttccacat ctgtataggt ttgaaaatta tcaacaactc atggggaggg
 120
 tggcgtgccca ggtcatggct gcctggagcc cttctgagga gggccggctc aaccgaggac
 180
 gccctcccca ctaccaagta ggcactgcgg gcaggagtcg ccacccccac cccaaggaag
 240
 ttcagaacag gcaacaggag gagcctgact ccaacagagt tgggtgtcatc cggcgcacatc
 300
 ctaaggacgt cacaacacat caactctggg agcccaaggg ggtgtgtggg ccactcaagg
 360
 ggaagatgat ccagaagctc tgctccctcc ctttgctttt gaagaacaca ggagtgcacac
 420
 gtgggggaatc taccggctta atttcttctt agtaacaggc atagtaggat caaaaaattt
 480
 ttgcttctaa tttttaaaaa cattcaatgt gtaca
 515

<210> 1282
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 1282
 Met Gly Glu His Ser Phe Leu Asn Ser Phe Pro His Leu Tyr Arg Phe
 1 5 10 15
 Glu Asn Tyr Gln Gln Leu Met Gly Arg Val Ala Cys Gln Val Met Ala
 20 25 30
 Ala Trp Ser Pro Ser Glu Glu Gly Arg Leu Asn Arg Gly Arg Pro Pro
 35 40 45
 His Tyr Gln Val Gly Thr Ala Gly Arg Ser Arg His Pro His Pro Lys
 50 55 60
 Glu Val Gln Asn Arg Gln Gln Glu Glu Pro Asp Ser Asn Arg Val Gly
 65 70 75 80
 Val Ile Arg Arg Ile Ala Lys Asp Val Thr Thr His Gln Leu Trp Glu
 85 90 95
 Pro Lys Gly Val Cys Gly Pro Leu Lys Gly Lys Met Ile Gln Lys Leu
 100 105 110
 Cys Ser Leu Pro Leu Leu Leu Lys Asn Thr Gly Val Thr Arg Gly Glu
 115 120 125
 Ser Thr Gly Leu Ile Ser Ser
 130 135

<210> 1283
 <211> 296
 <212> DNA
 <213> Homo sapiens

<400> 1283
 gaattcctca caatgaactg cagtgtctgg aggaccagtt gggtagcctt actccgggtc
 60
 tccactgcag aacttataca tatatgcttt gtgcacacaa agaaaaacag cagcccaaaa
 120
 gaatcccgcc tggggctctt aggagggagg aaagttccca caggtaactc actgggtaat
 180

tttaaagagc tcaggaaagg aaggaaggat ggctttttct cttgtgagtc aagacaaggt
 240
 cctgatgata accctcccag atcagaacgt aactttcaac ccacgagtgc tgctcn
 296

<210> 1284

<211> 94

<212> PRT

<213> Homo sapiens

<400> 1284

Met	Asn	Cys	Ser	Val	Trp	Arg	Thr	Ser	Trp	Val	Ala	Leu	Leu	Arg	Val
1				5				10					15		
Ser	Thr	Ala	Glu	Leu	Ile	His	Ile	Cys	Phe	Val	His	Thr	Lys	Lys	Asn
		20						25				30			
Ser	Ser	Pro	Lys	Glu	Ser	Arg	Leu	Gly	Leu	Leu	Gly	Gly	Arg	Lys	Val
		35					40				45				
Pro	Thr	Gly	Asn	Ser	Leu	Val	Asn	Phe	Lys	Glu	Leu	Arg	Lys	Gly	Arg
	50				55					60					
Lys	Asp	Gly	Phe	Phe	Ser	Cys	Glu	Ser	Arg	Gln	Gly	Pro	Asp	Asp	Asn
65				70					75				80		
Pro	Pro	Arg	Ser	Glu	Arg	Asn	Phe	Gln	Pro	Thr	Ser	Ala	Ala		
				85				90							

<210> 1285

<211> 526

<212> DNA

<213> Homo sapiens

<400> 1285

gggccccttc ttacctgccc cttccccgtg ccaccaaccc gtagacaggg agggcaagca
 60
 gtgaaaggctc catctagagg aggtaaaaga cagggtgag ggaaaacgcc ttgtacagtc
 120
 aggatggcag atgtactctg tcagggaaga cagccccaca gaaaaggctc ggcttgcca
 180
 agaagcaaca aaagggattc tacacctcag accagggagg gggaatgtgt acaaagattg
 240
 gatttactaa attcagagcc acagactttc aggtacttcg gtgaagatca gtgctcttc
 300
 aaacccacac ttcagaggca ggctttaaaa cgcctgactt ctgtcagggc cacaggctgg
 360
 gctgccccaa gtccttacgg ggctggggga tccgagagag gacttcccac tagtccaaga
 420
 tgtggtgact agtttcaagc cagagattga ggagcagacc tgatgccctt tcggggccct
 480
 gctaagaacc tgattcgagg aaaaggaagt gaagacagta acgcgt
 526

<210> 1286

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1286

```

Met Ala Asp Val Leu Cys Gln Gly Arg Gln Pro His Arg Lys Gly Ser
 1             5             10             15
Ala Trp Pro Arg Ser Asn Lys Arg Asp Ser Thr Pro Gln Thr Arg Glu
             20             25             30
Gly Glu Cys Val Gln Arg Leu Asp Leu Leu Asn Ser Glu Pro Gln Thr
             35             40             45
Phe Arg Tyr Phe Gly Glu Asp Gln Cys Ser Phe Lys Pro Thr Leu Gln
             50             55             60
Arg Gln Ala Leu Lys Arg Leu Thr Ser Val Arg Ala Thr Gly Trp Ala
65             70             75             80
Ala Gln Ser Ser Tyr Gly Ala Gly Gly Ser Glu Arg Gly Leu Pro Thr
             85             90             95
Ser Pro Arg Cys Gly Asp
             100

```

<210> 1287

<211> 333

<212> DNA

<213> Homo sapiens

<400> 1287

```

acgcgtgaag gggagaggca gctccagggtg gaggggaagtg catgaggaag cagagaggca
60
ggcgacaggc agcgtggctg gggctgggca ggccttccag tttgattgca gccagagggt
120
cagggtgagaa gaaggtacaa caagcaagga agggcccagg aagccactgg ggggtgttga
180
gccattgaat attctggatt ttaggacatt tctgtggctg actccactgc catcagagtt
240
catccacccc aactccagcc tgagagtgct gggggcactgg gcactccgga attcttcaaa
300
gctctgatgc aacatgtccc cagggtgtct gac
333

```

<210> 1288

<211> 105

<212> PRT

<213> Homo sapiens

<400> 1288

```

Met Leu His Gln Ser Phe Glu Glu Phe Arg Ser Ala Gln Cys Pro Ser
 1             5             10             15
Thr Leu Arg Leu Glu Leu Gly Trp Met Asn Ser Asp Gly Ser Gly Val
             20             25             30
Ser His Arg Asn Val Leu Lys Ser Arg Ile Phe Asn Gly Ser Asn Thr
             35             40             45
Pro Ser Gly Phe Leu Gly Pro Ser Leu Leu Val Val Pro Ser Ser His
50             55             60
Leu Thr Ser Gly Leu Gln Ser Asn Trp Lys Ala Cys Pro Ala Pro Ala
65             70             75             80
Thr Leu Pro Val Ala Cys Leu Ser Ala Ser Ser Cys Thr Ser Leu His
             85             90             95
Leu Glu Leu Pro Leu Pro Phe Thr Arg

```


100

105

<210> 1289
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 1289
 acgctgtct gtgtacaggt ggaaggggat gggatatgaga tggcgcagcg tgtgcatggg
 60
 cacggcgtat ggtgtgtgag tgcactcgtg tgccggagag ctgtaagctg ctggctgagt
 120
 cctgcacggg ggaggaggca aggtggcccc tgccctgtggg cacagagccc accttccggt
 180
 ccagcccgag gcccctttcc cagagcccc tccaagggg ccataccacc tgcattccca
 240
 agatggcgtg gggcgccct ggtgcaggag caggggacag tcagggaggc gtgtggcgga
 300
 cagtagcagc cccccagccc cctccccccc accggt
 336

<210> 1290
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 1290
 Met Val Cys Glu Cys Thr Arg Val Pro Glu Ser Cys Lys Leu Leu Ala
 1 5 10 15
 Glu Ser Cys Thr Val Glu Glu Ala Arg Trp Pro Leu Pro Val Gly Thr
 20 25 30
 Glu Pro Thr Phe Arg Ser Ser Pro Arg Pro Leu Ser Gln Ser Pro Leu
 35 40 45
 Pro Arg Gly His Thr Thr Cys Ile Pro Lys Met Ala Trp Gly Val Pro
 50 55 60
 Gly Ala Gly Ala Gly Asp Ser Gln Gly Gly Val Trp Arg Thr Val Ala
 65 70 75 80
 Ala Pro Gln Pro Pro Ser Pro His Arg
 85

<210> 1291
 <211> 379
 <212> DNA
 <213> Homo sapiens

<400> 1291
 tggccatcca cctctgtcag ctgttccggc aaccattca gatcattgtg gtagtaacga
 60
 atcttctgca acggcccggc accgtccacg cgagccagag gttgatagcc ttcattctca
 120
 taaacgtaca ggcttgtctg gctgtgttta tgctcctgca ataaccgcaa accatccag
 180
 gtaaaccggg tttcccccaa cggataccca tcaactgccat gctcggtttt ttctatccga
 240

cgccccagcg ggtcatacac catcctgacc acgctaccat cgtcattacg cacttcaacc
 300
 agccggcttt cagcgtcata cgcaaaccgc tgcacgccac gcttggcact gcgcttctcg
 360
 accatccgcc caaacgcgt
 379

<210> 1292
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 1292
 Met Val Glu Lys Arg Ser Ala Lys Arg Gly Val Gln Arg Phe Ala Tyr
 1 5 10 15
 Asp Ala Glu Ser Arg Leu Val Glu Val Arg Asn Asp Asp Gly Ser Val
 20 25 30
 Val Arg Met Val Tyr Asp Pro Leu Gly Arg Arg Ile Glu Lys Thr Glu
 35 40 45
 His Gly Ser Asp Gly Tyr Pro Leu Gly Glu Thr Arg Phe Thr Trp Asp
 50 55 60
 Gly Leu Arg Leu Leu Gln Glu His Lys His Ser Gln Thr Ser Leu Tyr
 65 70 75 80
 Val Tyr Glu Asp Glu Gly Tyr Gln Pro Leu Ala Arg Val Asp Gly Ala
 85 90 95
 Gly Pro Leu Gln Lys Ile Arg Tyr Tyr His Asn Asp Leu Asn Gly Leu
 100 105 110
 Pro Glu Gln Leu Thr Glu Val Asp Gly
 115 120

<210> 1293
 <211> 340
 <212> DNA
 <213> Homo sapiens

<400> 1293
 nngccggccg cccgagagct gttcgaggcg tgccgcaacg gggacgtgga acgagtcaag
 60
 aggctgggtga cgcttgagaa ggtgaacagc cgcgacacgg cgggcaggaa atccaccccg
 120
 ctgcacttcg ccgcagggtt tgggcggaaa gacgtagtgt aatatttgct tcagaatggt
 180
 gcaaagtgtc aagcacgtga tgatgggggc cttattcctc ttcataatgc atgctctttt
 240
 ggatcatgctg aagtagtcaa tctccttttg cgacatggtg cagaccccaa tgcttgagat
 300
 aattggaatt atactcctag aggggtggagt gtgctcgcga
 340

<210> 1294
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 1294

Xaa Pro Ala Ala Arg Glu Leu Phe Glu Ala Cys Arg Asn Gly Asp Val
 1 5 10 15
 Glu Arg Val Lys Arg Leu Val Thr Pro Glu Lys Val Asn Ser Arg Asp
 20 25 30
 Thr Ala Gly Arg Lys Ser Thr Pro Leu His Phe Ala Ala Gly Phe Gly
 35 40 45
 Arg Lys Asp Val Val Glu Tyr Leu Leu Gln Asn Gly Ala Asn Val Gln
 50 55 60
 Ala Arg Asp Asp Gly Gly Leu Ile Pro Leu His Asn Ala Cys Ser Phe
 65 70 75 80
 Gly His Ala Glu Val Val Asn Leu Leu Leu Arg His Gly Ala Asp Pro
 85 90 95
 Asn Ala

<210> 1295

<211> 351

<212> DNA

<213> Homo sapiens

<400> 1295

ggatcccgga gacctcgctcg gcgaacgtca cctcgtccag ggccgaggcg cggaacaccg
 60
 acgtgtcgat gccctcgccc tcgatgcagt cggtcagcgg tacgacggcg ccgcgaggag
 120
 cgaagggtgcc gatctggctg cgctcggcgt agaccagcga cggcgggttcg cccgacgcca
 180
 cggaggagag gaactgctgg atgtcgaggt caccctcgat cagcttgacc ttggcgtcgc
 240
 cgagctcttc ctctgccccg tcgagccgca ccgtcgcgat ctgctgcgcg gcaccgaagc
 300
 ccatacctc gacctcgccg gagagcttcg ccccgctgtc gaaagacgcg t
 351

<210> 1296

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1296

Gly Ser Arg Arg Pro Arg Arg Arg Thr Ser Pro Arg Pro Gly Pro Arg
 1 5 10 15
 Arg Gly Thr Pro Thr Cys Arg Cys Pro Arg Pro Arg Cys Ser Arg Ser
 20 25 30
 Ala Val Arg Arg Arg Arg Gly Arg Arg Cys Arg Ser Gly Cys Ala
 35 40 45
 Arg Arg Arg Pro Ala Thr Ala Val Arg Pro Thr Pro Arg Arg Arg Gly
 50 55 60
 Thr Ala Gly Cys Arg Gly His Pro Arg Ser Ala
 65 70 75

<210> 1297

<211> 356

<212> DNA

<213> Homo sapiens

<400> 1297

gtgcacccgg attcccattg ccaccgactt cgagtaaact ccagtcccga ggacacgaga
 60
 gacacccagg cctcaggccc catgggcacg ctccacgcca cggctcctac cagagggaca
 120
 gatacactct acaaatctcg gggcccacca caccaagaag acacggagga gccaacaaaa
 180
 gaaggaccat acgaaatgca cccccaaagc aaccaaccaa tccaagaaaa aatacgtctc
 240
 agggttctgt gggccctctt gcatgggctg ccctgcccc ctgttctggc ctggctcaag
 300
 caccttacct cagcctgctc gaaagagccc tggctaccag agcagagcac tggcct
 356

<210> 1298

<211> 91

<212> PRT

<213> Homo sapiens

<400> 1298

Met	Gly	Thr	Leu	His	Ala	Thr	Ala	Pro	Thr	Arg	Gly	Thr	Asp	Thr	Leu
1				5					10					15	
Tyr	Lys	Ser	Arg	Gly	Pro	Pro	His	Gln	Glu	Asp	Thr	Glu	Glu	Pro	Thr
			20					25					30		
Lys	Glu	Gly	Pro	Tyr	Glu	Met	His	Pro	Gln	Ser	Asn	Gln	Pro	Ile	Gln
			35				40					45			
Glu	Lys	Ile	Arg	Leu	Arg	Val	Leu	Trp	Ala	Leu	Leu	His	Gly	Leu	Pro
			50			55					60				
Cys	Pro	Pro	Val	Leu	Ala	Trp	Leu	Lys	His	Leu	Thr	Pro	Ala	Cys	Ser
65				70					75					80	
Lys	Glu	Pro	Trp	Leu	Pro	Glu	Gln	Ser	Thr	Gly					
			85						90						

<210> 1299

<211> 307

<212> DNA

<213> Homo sapiens

<400> 1299

ggatccactt ctaagatgtc tcaactcacgt ggtgatggca gcaggcctca gactctggtg
 60
 gttgttggca ggatgtctca gttccttgcc atgtgggtct ctacacaggg cagcttcctg
 120
 tgtctttgcc atatggcaac tgagaatgat cttggctacc ttctccagcc cgggagtcgg
 180
 gagttttctg ggggtggggtc acgggtcttg cccggagtgc gccctggcaa aggcctgtgc
 240
 cagtgatcct ggagcggagc gaagtgtttc cgtgactctg cagccgcagt tcttagggct
 300
 tccttag
 307

<210> 1300
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 1300
 Met Ala Ala Gly Leu Arg Leu Trp Trp Leu Leu Ala Gly Cys Leu Ser
 1 5 10 15
 Ser Leu Pro Cys Gly Ser Leu His Arg Ala Ala Ser Cys Val Phe Ala
 20 25 30
 Ile Trp Gln Leu Arg Met Ile Leu Ala Thr Phe Ser Ser Pro Gly Val
 35 40 45
 Gly Ser Phe Leu Gly Trp Gly His Gly Ser Cys Pro Glu Phe Ala Leu
 50 55 60
 Ala Lys Ala Cys Ala Ser Asp Pro Gly Ala Glu Arg Ser Val Ser Val
 65 70 75 80
 Thr Leu Gln Pro Gln Phe Leu Gly Leu Pro
 85 90

<210> 1301
 <211> 408
 <212> DNA
 <213> Homo sapiens

<400> 1301
 ctgagcaagt taaaagaagt tcttgaattt tataacttta ttttgacaaa ctattataaa
 60
 gttgagccta tttcctttga tgcagtatac gctgaagggt tggaaatggc tgagttcttg
 120
 cgccctatgg tgtcagatac gattacactt ttgcatgacc ttagaagggtc tggcgcaaac
 180
 atcatgtttg aaggcgcgca agggctctttg ttggatgttg atcatggtac ttacccgtat
 240
 gtgacttcat ctaatacgac tgcgggcgga gcgccagcgg gaacagggtt tggctccttg
 300
 tacttagatt atgtattagg tatcactaag gcttatacga ctgcggttg ttctggacct
 360
 ttcctactg agttgtttga cgaagatggt gagcgtcttg gtacgcgt
 408

<210> 1302
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 1302
 Leu Ser Lys Leu Lys Glu Val Leu Glu Phe Tyr Asn Phe Ile Leu Thr
 1 5 10 15
 Asn Tyr Tyr Lys Val Glu Pro Ile Ser Phe Asp Ala Val Tyr Ala Glu
 20 25 30
 Gly Leu Glu Met Ala Glu Phe Leu Arg Pro Met Val Ser Asp Thr Ile
 35 40 45
 Thr Leu Leu His Asp Leu Arg Arg Ser Gly Ala Asn Ile Met Phe Glu

50		55		60
Gly Ala Gln Gly Ser Leu Leu Asp Val Asp His Gly Thr Tyr Pro Tyr				
65		70		75
Val Thr Ser Ser Asn Thr Thr Ala Gly Gly Ala Pro Ala Gly Thr Gly				
	85		90	95
Phe Gly Pro Leu Tyr Leu Asp Tyr Val Leu Gly Ile Thr Lys Ala Tyr				
	100		105	110
Thr Thr Arg Val Gly Ser Gly Pro Phe Pro Thr Glu Leu Phe Asp Glu				
	115		120	125
Asp Gly Glu Arg Leu Gly Thr Arg				
130		135		

<210> 1303

<211> 1037

<212> DNA

<213> Homo sapiens

<400> 1303

```

gccggggggg ggatgctatc taacatcttc atgttcaacc cagagaagaa acatcccgcc
60
gtttgccctg gggccctctc atcccacatc attttttcaa cccttcccca ncctttcnga
120
aatagggcca accccttaaa aancaaant tcanataaac ccttttccct ccaccctttt
180
cccatcccat cctttttccc tcacaaacac aaacaaaang cctctttcct ttgccatttc
240
cactcctttt ggaagaaaca ggcctgttc cctccctgct caccacttca ccagctcag
300
ctggcacaaa aatactgcca ccacaccttc accctgccta gccaacctg gcagggcctc
360
ggagtagcct gccagctaaa atacgggttg cccagataac tgtgaatgtc agataagaat
420
cttctgggac aagtatgtcc catgccatat ttgggacata cttacactaa taaatttctg
480
tttatctgaa actcaaattt gcctgggcgt cctgtacttt tcttaactaa atttggtgcc
540
tctacacaca aggtccctgg ggtggggggg cacaggagca agccccttcc caggctgggt
600
ccctgccggc atctcccaca ggccaggact ggccaccag atggagcccg tgccaggcag
660
ccggcgacag acggacaaaag gctgctcagg agacactgca caccttctc tttcttgtct
720
gggggctcaa gaatccagac gccacctcc cggagcgagc accaagacag gaagccaacc
780
tgcaatgccc agcccactgc gaccacaggg ctctgccggg gtcttgccgg aaccagggt
840
tccggtccag aagccaggga taaatgccgc ttctcctata gggacggtca gagtagagag
900
ggggaggcct acagtctcac ctgcaggag aggaagtctt cggggcgggc acgtgggggg
960
cctgacagct ccgagcacac ccggccacag tgaccacgga ctgcacacgc agaagcagtc
1020
tggatccac gcgtggc
1037

```


<210> 1304
 <211> 132
 <212> PRT
 <213> Homo sapiens

<400> 1304
 Met Glu Pro Val Pro Gly Ser Arg Arg Gln Thr Asp Lys Gly Cys Ser
 1 5 10 15
 Gly Asp Thr Ala His Leu Pro Leu Ser Cys Leu Gly Ala Gln Glu Ser
 20 25 30
 Arg Arg Pro Pro Pro Arg Ala Ser Thr Lys Thr Gly Ser Gln Pro Ala
 35 40 45
 Met Pro Ser Pro Leu Arg Pro Gln Gly Ser Ala Gly Val Leu Pro Glu
 50 55 60
 Pro Arg Val Pro Val Gln Lys Pro Gly Ile Asn Ala Ala Ser Pro Ile
 65 70 75 80
 Gly Thr Val Arg Val Glu Arg Gly Arg Pro Thr Val Ser Pro Ala Gly
 85 90 95
 Arg Gly Ser Pro Arg Gly Gly His Val Gly Gly Leu Thr Ala Pro Ser
 100 105 110
 Thr Pro Gly His Ser Asp His Gly Leu His Thr Gln Lys Gln Ser Gly
 115 120 125
 Ser His Ala Trp
 130

<210> 1305
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 1305
 nacgcgttct gcgaggccat gcgggtctat gccccgcggc cgttgacctc gccacactc
 60
 ccggccccgc tgcgggtgga gagacgtcgg gccctctacg ggtcctggta cgagtttttc
 120
 ccgcgtcttc aggggtgctta tgctgatgcg gacggtcact gggtttcagg tactttcgac
 180
 acctcctggg agcgcttga cgccgcgct gcgatgggat ttgacgttgt ttacctgcc
 240
 gcgatccatc ccatgggcca agccttcgc aagggaagg acaacacctt gacccaggt
 300
 ccggacgatc cgggatcgcc gtgggccatc ggatcgtctg atggcggcca tgacaccatt
 360
 caccgcgacc taggcacctt cgacgacctc gaccgtttcg tggccacgc tcatgacct
 420
 ggcatggagg tggccctaga ttttgccttg caagcctcac cagaccaccc gtgggtacac
 480
 cagcaccgag agtggttcac gaccgcggt gatggcacca tcgcctatgc agaaaattca
 540
 cccaaaaagt atcaggacat ctaccgatc aacttcgaca atgacctga cggtatctac
 600
 caggaatgct tgcggctgct ggagttatgg atctccacg gcgtgacgat tttccgcgtc
 660

gataatccac ataccaagcc tctgaatttc tgggcctggc tcatggaaca ggttcacgt
 720
 cgtcaccocg aggtcatctt cctggcagag gccttcaccc gtcccgagat gatca
 775

<210> 1306
 <211> 258
 <212> PRT
 <213> Homo sapiens

<400> 1306
 Xaa Ala Phe Cys Glu Ala Met Arg Val Tyr Ala Pro Arg Pro Leu Thr
 1 5 10 15
 Ser Pro Thr Leu Pro Ala Pro Leu Arg Val Glu Arg Arg Arg Ala Leu
 20 25 30
 Tyr Gly Ser Trp Tyr Glu Phe Phe Pro Arg Ser Gln Gly Ala Tyr Val
 35 40 45
 Asp Ala Asp Gly His Trp Val Ser Gly Thr Phe Asp Thr Ser Trp Glu
 50 55 60
 Arg Leu Asp Ala Ala Ala Ala Met Gly Phe Asp Val Val Tyr Leu Pro
 65 70 75 80
 Ala Ile His Pro Met Gly Gln Ala Phe Arg Lys Gly Lys Asp Asn Thr
 85 90 95
 Leu Thr Pro Gly Pro Asp Asp Pro Gly Ser Pro Trp Ala Ile Gly Ser
 100 105 110
 Ser Asp Gly Gly His Asp Thr Ile His Pro Asp Leu Gly Thr Phe Asp
 115 120 125
 Asp Leu Asp Arg Phe Val Ala His Ala His Asp Leu Gly Met Glu Val
 130 135 140
 Ala Leu Asp Phe Ala Leu Gln Ala Ser Pro Asp His Pro Trp Val His
 145 150 155 160
 Gln His Pro Glu Trp Phe Thr Thr Arg Val Asp Gly Thr Ile Ala Tyr
 165 170 175
 Ala Glu Asn Ser Pro Lys Lys Tyr Gln Asp Ile Tyr Pro Ile Asn Phe
 180 185 190
 Asp Asn Asp Pro Asp Gly Ile Tyr Gln Glu Cys Leu Arg Leu Leu Glu
 195 200 205
 Leu Trp Ile Ser His Gly Val Thr Ile Phe Arg Val Asp Asn Pro His
 210 215 220
 Thr Lys Pro Leu Asn Phe Trp Ala Trp Leu Met Glu Gln Val His Arg
 225 230 235 240
 Arg His Pro Glu Val Ile Phe Leu Ala Glu Ala Phe Thr Arg Pro Glu
 245 250 255
 Met Ile

<210> 1307
 <211> 624
 <212> DNA
 <213> Homo sapiens

<400> 1307
 cggccggtgg ggagtgccaa gccccaggct ccctgcatcc cacttctggt gaggtcagtg
 60

atgctgggca catgcggtca gggccctgtg cctgagccgt ggaactccac agccattcca
 120
 catgttcagt cccacaccct gaggccaagg caccocgagt ccctgaggga gcaaggccct
 180
 gccacccgag gctgccgctg cagaggcaaa cagccccgag caaggcccgg caaccccagg
 240
 ctgtggctgc atggggcaaa cacagcctgg cctgaggetg ccggccagtc ggggtggcca
 300
 taggctaacg agaagccagg gcctccctcc ccaactgggt ttccacaaaa acctgactaa
 360
 tgtccaggga cagccaaagg ccttgagggt agctgggtgg aacacctttc ccctaccatc
 420
 ccgagatatt gtcttcttgg atggagtttt caaagccctc catgtggagg tctcgggatg
 480
 agaggcctcg gctgagctct gtgcagagga gcaggaagct gcagaatggg caccgcctc
 540
 cctcccagca cctccagtcg ctgccacgcc ccaagctcct gagctgctct gcccaagacc
 600
 tcccccaacc ttggtctgac gcgt
 624

<210> 1308

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1308

Met	Ala	Thr	Pro	Thr	Gly	Arg	Gln	Pro	Gln	Ala	Arg	Leu	Cys	Leu	Pro
1				5				10					15		
His	Ala	Ala	Thr	Ala	Trp	Gly	Cys	Arg	Ala	Leu	Leu	Gly	Ala	Val	Cys
			20					25				30			
Leu	Cys	Ser	Gly	Ser	Leu	Gly	Trp	Gln	Gly	Leu	Ala	Pro	Ser	Gly	Thr
		35				40					45				
Arg	Gly	Ala	Leu	Ala	Ser	Gly	Cys	Gly	Thr	Glu	His	Val	Glu	Trp	Leu
		50				55				60					
Trp	Ser	Ser	Thr	Ala	Gln	Ala	Gln	Gly	Pro	Asp	Arg	Met	Cys	Pro	Ala
65					70					75				80	
Ser	Leu	Thr	Ser	Pro	Glu	Val	Gly	Cys	Arg	Glu	Pro	Gly	Ala	Trp	His
				85					90					95	
Ser	Pro	Pro	Ala												
			100												

<210> 1309

<211> 563

<212> DNA

<213> Homo sapiens

<400> 1309

ntgatcatcg ccaaccacca gtccaactat gacctgttcg tgtttggcac gggagtgcce
 60
 taccgtactg tgtgtatcgg caaaaagagc ctgaaatggg tgccgctgtt cggtcagttg
 120
 ttctggctgg cgggcaatgt gttgattgac cggggcaacg cgcacaaggc gcgccgctca
 180

atgctcacca ccacccacac cttgcagcat aaagacacat cgatctgggt atttgccgaa
 240
 ggtacacgca acttcggtga aaccttgctg ccgttcaaga aaggtgcgtt ccagatggcg
 300
 attgccgcag gtgtgccgat cgtgcaggtg tgtgtcagca cgtatgtgaa gcacatgaag
 360
 ctcaatcggtt gggacagtgg cgatatttta attcgctcgt tgccgccaat tcctacgacc
 420
 ggactgacgt tggatgacat gccacggttg atggagacct gccgtcaaca aatgcgcgag
 480
 tgcattgagg caatggaccg cgagctggaa atcgtccctt gtaggaacga attggctcgc
 540
 gaagggcggtt aacgactacg cgt
 563

<210> 1310

<211> 183

<212> PRT

<213> Homo sapiens

<400> 1310

Xaa	Ile	Ile	Ala	Asn	His	Gln	Ser	Asn	Tyr	Asp	Leu	Phe	Val	Phe	Gly
1				5					10					15	
Thr	Gly	Val	Pro	Tyr	Arg	Thr	Val	Cys	Ile	Gly	Lys	Lys	Ser	Leu	Lys
			20					25					30		
Trp	Val	Pro	Leu	Phe	Gly	Gln	Leu	Phe	Trp	Leu	Ala	Gly	Asn	Val	Leu
			35				40					45			
Ile	Asp	Arg	Gly	Asn	Ala	His	Lys	Ala	Arg	Arg	Ser	Met	Leu	Thr	Thr
			50				55				60				
Thr	His	Thr	Leu	Gln	His	Lys	Asp	Thr	Ser	Ile	Trp	Val	Phe	Ala	Glu
65					70					75				80	
Gly	Thr	Arg	Asn	Phe	Gly	Glu	Thr	Leu	Leu	Pro	Phe	Lys	Lys	Gly	Ala
			85						90					95	
Phe	Gln	Met	Ala	Ile	Ala	Ala	Gly	Val	Pro	Ile	Val	Gln	Val	Cys	Val
			100					105					110		
Ser	Thr	Tyr	Val	Lys	His	Met	Lys	Leu	Asn	Arg	Trp	Asp	Ser	Gly	Asp
			115				120					125			
Ile	Leu	Ile	Arg	Ser	Leu	Pro	Pro	Ile	Pro	Thr	Thr	Gly	Leu	Thr	Leu
			130				135					140			
Asp	Asp	Met	Pro	Arg	Leu	Met	Glu	Thr	Cys	Arg	Gln	Gln	Met	Arg	Glu
145					150					155				160	
Cys	Ile	Glu	Ala	Met	Asp	Arg	Glu	Leu	Glu	Ile	Val	Pro	Cys	Arg	Asn
				165					170					175	
Glu	Leu	Ala	Arg	Glu	Gly	Arg									
							180								

<210> 1311

<211> 674

<212> DNA

<213> Homo sapiens

<400> 1311

gagcttgacg acgccaacg tgacatcctt gtagcaggcg ggtacttgac caatgatccc
 60

tccagggccg acccggcaca caccgtcggg ctgacggatg atctgagctg ggtcaagcgc
 120
 atctccccgc cgccgaaagc cggaatacca cgaggcgctg gatcggcgat tctgttcaca
 180
 gggctgaccc ccgatcagga tcgactgacc aacgagtggg cgcaggcgca cgggttgggg
 240
 gaattttatg tcatggcccc ccgaatcctc ggtgatgtcc cgctgccaac gatcaccatc
 300
 gtcgcgaccg tcaccttcat cgtgttgctg gccatcatgg cgggcctgtt ggcgaaggag
 360
 gagagagccg ccaacagtga tctggtgacc agcctcaaac gcatcggatt gggcaggcgt
 420
 tgggtggacc aggtcatcct tgtggaggtg gctaccacaa tgctggccgc cctgatatgc
 480
 ggggtgatct cctcggttgt cgcggtgtgg ctacacaggca ggatcctgtc gggagccttg
 540
 gacctgcttg gggcgcgctg gtgggtcttc ggtgcgttgg ccgccgggat gttcgggtga
 600
 tccttgctgg gggcgcctat ccacgcgcgt taccacttcg acatgagagc tacctgatcc
 660
 acgaccccg gaca
 674

<210> 1312

<211> 196

<212> PRT

<213> Homo sapiens

<400> 1312

Met	Asp	Gly	Gly	Pro	Gln	Gln	Gly	Ser	Thr	Glu	His	Pro	Gly	Gly	Gln
1				5					10					15	
Arg	Thr	Glu	Asp	Pro	Pro	Arg	Gly	Pro	Lys	Gln	Val	Gln	Gly	Ser	Arg
		20						25					30		
Gln	Asp	Pro	Ala	Cys	Glu	Pro	His	Arg	Asp	Asn	Arg	Gly	Asp	His	Pro
		35					40					45			
Ala	Tyr	Gln	Gly	Gly	Gln	His	Cys	Gly	Ser	His	Leu	His	Lys	Asp	Asp
	50					55					60				
Leu	Val	His	Pro	Thr	Pro	Ala	Gln	Ser	Asp	Ala	Phe	Glu	Ala	Gly	His
65					70					75					80
Gln	Ile	Thr	Val	Gly	Gly	Ser	Leu	Leu	Leu	Arg	Gln	Gln	Ala	Arg	His
			85					90						95	
Asp	Gly	Arg	Gln	His	Asp	Glu	Gly	Asp	Gly	Arg	Asp	Asp	Gly	Asp	Arg
			100					105					110		
Trp	Gln	Arg	Asp	Ile	Thr	Glu	Asp	Ser	Gly	Gly	His	Asp	Ile	Lys	Phe
		115					120					125			
Pro	Gln	Pro	Val	Arg	Leu	Arg	Pro	Leu	Val	Gly	Gln	Ser	Ile	Leu	Ile
		130				135					140				
Gly	Gly	Gln	Pro	Cys	Glu	Gln	Asn	Arg	Arg	Ser	Ser	Ala	Ser	Trp	Tyr
145				150						155				160	
Ser	Gly	Phe	Arg	Arg	Pro	Gly	Asp	Ala	Leu	Asp	Pro	Ala	Gln	Ile	Ile
			165					170					175		
Arg	Gln	Pro	Asp	Gly	Val	Cys	Arg	Val	Gly	Pro	Gly	Gly	Ile	Ile	Gly
		180						185					190		
Gln	Val	Pro	Ala												

195

<210> 1313
 <211> 367
 <212> DNA
 <213> Homo sapiens

<400> 1313
 cgaatatcca tgcagccgcg ccaggtggca ggtgcaggtg gtgcggcagg ggctgcagcg
 60
 gtggtggcag ctagcgtagg acagtcacga gatttaggag ataaaataga aggtggcggc
 120
 aaggaaggga gaggacagag cctggtgtga ctctgggtt tctggtgtgt atagctggtg
 180
 gacagtgggtg tctttgccaa gaggggagcc ctggaagagg agaggtttgc agggcaggtg
 240
 ctgagtccgg ttttggacac gctgaatttg aggtatctgt cagatatgag acccaaaagg
 300
 tgaggcgagg gaagtggatg tgcaggccct gagctctggg aggggtctgg gtatgctgtg
 360
 gtcatga
 367

<210> 1314
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 1314
 Met Thr Thr Ala Tyr Pro Asp Pro Ser Gln Ser Ser Gly Pro Ala His
 1 5 10 15
 Pro Leu Pro Arg Pro His Leu Leu Gly Leu Ile Ser Asp Arg Tyr Leu
 20 25 30
 Lys Phe Ser Val Ser Lys Thr Gly Leu Ser Thr Cys Pro Ala Asn Leu
 35 40 45
 Ser Ser Ser Arg Ala Pro Leu Ala Lys Thr Pro Leu Ser Thr Ser
 50 55 60
 Tyr Thr His Gln Lys Pro Arg Ser His Thr Arg Leu Cys Pro Leu Pro
 65 70 75 80
 Ser Leu Pro Pro Pro Ser Ile Leu Ser Pro Lys Ser Arg Asp Cys Pro
 85 90 95
 Thr Leu Ala Ala Thr Thr Ala Ala Ala Pro Ala Ala Pro Pro Ala Pro
 100 105 110
 Ala Thr Trp Arg Gly Cys Met Asp Ile
 115 120

<210> 1315
 <211> 5245
 <212> DNA
 <213> Homo sapiens

<400> 1315
 nntccggaga ccatggacga agattcttcg ttgagagatt atactgtaag cttggactct
 60

gacatggatg atgcatctaa gcttcttcag gattatgata ttcgaactgg caacaccagg
120
gaagctttga gtccttgccc aagtactgta agtaccaagt ctccagccagg cagcagtgtc
180
tcttctagtt ctggagttaa aatgaccagc tttgctgaac aaaaattcag gaaactgaat
240
cataccgatg gaaaaagtag tggagcagc tctcaaaaaa ctacaccaga aggctctgaa
300
cttaatatcc ctcatgtggt tgcttgggca caaattccag aagaaacagg gcttccacag
360
ggacgggaca ctaccagct gttggcctct gaaatggtgc atcttaggat gaaactagaa
420
gaaaagaggc gtgctataga agcccagaaa aagaaaatgg aagctgcttt taccaaaccg
480
agacagaaaa tgggaaggac agcattcctt actgtagtga aaaagaaagg ggatgggata
540
tctcctctac gagaggaagc ggcgggtgca gaagatgaga aagtatatac tgatcgagca
600
aaagaaaagg aatcacaaaa aactgatgga caaaggagca agtcactggc agatataaaa
660
gagagcatgg agaatcctca agccaaatgg ctaaagtctc caactacacc tattgatcct
720
gagaagcagt ggaacctggc aagcccctca gaagaaactt taaatgaagg agagatttta
780
gaatatacca aatccattga aaagttaaatt tcatccctgc attttctaca acaagaaatg
840
caacgcttgt cacttcagca ggagatgtta atgcagatga gagagcaaca atcttgggtg
900
atttcacctc cacaaccctc tccacagaaa cagattcgag attttaaacc ttctaagcag
960
gcaggcctgt catcagccat tgcaccattc tctcagact cccctcgccc tactcaccca
1020
tctccacagt cttctaacag gaaaagtgca tctttttctg ttaaaagtca aaggactcct
1080
aggccaaatg agttaaaaat aacacctttg aatcgaacct tgacacctcc tcggtctgtg
1140
gatagccttc ctcggttaag gaggttttca ccaagtcaag ttcctattca aactagggtc
1200
tttgtatgtt ttggggatga tggagaacct cagttaaagg aatccaaacc taaagaggaa
1260
gttaaaaagg aggaattgga atccaaaggg actttggaac agcgtggaca taatccagaa
1320
gaaaaggaaa tcaaaccctt tgagtcaaca gtctctgaag tccatcact gcctgtcaca
1380
gagactgtat gtctgacacc aaatgaggac caattgaatc aaccacaga accccctcct
1440
aaaccgcttt tcccaccac tgctccaaa aatgttaatc tgattgaagt ttccctctca
1500
gatttgaaac cccctgaaaa ggctgatgta cctgttgaaa aatatgatgg agaaagtgat
1560
aaagaacaat ttgatgatga ccagaaagta tgctgtggat tcttttttaa ggatgatcaa
1620
aaagcagaaa atgatatggc aatgaaacgg gcagctttgt tggagaaaag attaagaagg
1680

gaaaaggaaa ctcagctccg gaaacaacag ttggaagcag aaatggagca taagaaggag
1740
gaaacaaggc gtaaaactga ggaagaacgt cagaagaaag aagatgagag agcacgcaga
1800
gaatttatta ggcaagaata tatgaggcgg aaacaactga aactaatgga agatatggat
1860
acagtaatta aaccccgctc tcaagtagta aaacaaaaaa aacagcgacc aaaatctatt
1920
cacagagatc atattgaatc ccccaaaaaca ccaataaagg gtcctccagt ctctagcctt
1980
tctttggcat cgctgaacac gggtgataac gagagtgtac attcaggcaa gaggacgcca
2040
agatcagagt ctgtagaagg cttcttatct ccaagtcgtt gtggcagtcg aaatggagaa
2100
aaagactggg agaatgcac aacaacttct tcagtggctt ctggaacaga atatacagga
2160
ccaaagctct acaaagaacc cagtgcacaaa tccaataagc acataatata aaatgcttta
2220
gctcattgct gtttggctgg aaaagtaaata gaaggtcaga agaaaaaaat actggaggaa
2280
atggagaaat cagatgccaa caactttctta atcttgttcc gggattcagg atgccagttc
2340
agatctttat acacttattg cccagaaact gaagaaatca ataaactgac tgggataggc
2400
cctaaatcta tcaactaaaa aatgattgaa ggactttaca aatataattc tgacaggaaa
2460
cagtttagcc acataccgcg taaaacttta tctgccagtg ttgatgcaat taccattcat
2520
agccatttat ggcagaccaa aagaccagta acacccaaaa aacttttacc cactaaggca
2580
tagaagttgg gaaatacttg cttcagaaca ttcattgtaa atttgcactt catctttcct
2640
gcctatagaa aatctttcta attgccaaca agacttttat taattaaaac tggacattaa
2700
gctctgttgt catgaacaac tggaatgtaa accacagtat tttggagtgc agaacattct
2760
caattaagtg ataagtccaa atgatgaagg aaatgtttta attcaciaat ggagatttgt
2820
atgtgttacc aggttcacct gcttgatatt agatacatta aagcactgaa ttttcatgga
2880
tattagttgg atttatcatt gaaatatggt taagattaca aattatgtgt tttatttgtt
2940
gctttttttt aaccttttta tgtatattct tgtcttcaga tggtttgcta ttttctctc
3000
ctggggggtt attctaagat acctttgtat tttatttcat gtggagatca tgaaagtagg
3060
aaatatacct ttagaagtaa ctcgcacctt tcttatgatg ttaagagaaa cactagtgtt
3120
tagttttaca gtaacctca tattttaatg gtgttacagc atttgcaaaa attattctgc
3180
taagtattta caactctatt tattattcac tcaagtatta acattctcta ttaaataaga
3240
ggagggtgtg taaagagctg ctagtaggtt cgctttaaac cacatgagct taaccaagaa
3300

tatgttatga gaagttgctg attaaatcag tgctgttttt acaccacttc tggccaactc
3360
agaataatatt agattgttct tttacaataa aaggctttct atctctttta aagtaagtca
3420
ctttataagt tggcagaagt gaatgacact ttgagagtag tctttcaatc tgaagatgta
3480
agacttcctg aaacaagttc tcaagaagtc tttacattat atttataact catataaaaa
3540
ttatatattag aattttttaa catgtacaaa gggctacatt ttaattttta aatagcttca
3600
cattatattta cttatattgg gtttttcttc attttaatcc ttttcaagtg gaatggctta
3660
gaataagtat acacttgaaa tctcctctac atgatctttg ttctttaaca gtgtatacca
3720
gagggtagt tggggaaaaa cttcattctc aggaaaagac ttgaatgatt atgtgacctc
3780
gttatatttc agtgttggtga caaatgtgta aactagcggg ggaagacagt attgtatcat
3840
aagttagatg cgtagtttgt tttctgtcat gggaagtaga gataaaaaata tgtacatttc
3900
tctaattgag ttgttttagag aaagaactaa tgtctcacgt gatgtattta cttattttta
3960
aaagaagaat aggagtggga agccctgag ctgtactttt ctattattat aaggccttta
4020
ggcatcagtg catctgggtt atcaacattt tctcaaatgc tgtcaatatt ttactgtaat
4080
ttatgttctt atatttatgt atatttgta aaactgtaaa aaaatttcac agattttttt
4140
ccaatacctg tgcaagatac atgtgtagct caaaactatt tgtgatctac tgtttgcatg
4200
taagagacca ggatatgtaa ctcttatatt ttaagtgtat acatattgtg tatataacat
4260
atggatatta aaaatgggga attgcacatt ttaccttttg gacagtaatt tctatcacag
4320
ttagaaggaa atgatagtca aatacacgtt tagattaaaa ctagttttaa aaattataaa
4380
tgaatctaata caaatgtga atagtagtca aaaggataat ttaataagca ttttacgtta
4440
ctaaatttgt tcatttcaat attaaactaa tttccctcat caaagcaatc tttgtgatat
4500
tacttcgcta ttaaataaag aaaattggat gcaagacaat ggagaaactt taaaactaaa
4560
caggaccacc ctttattctt aaatttgtgt gtgtccaaca gttgaattga atgtctataa
4620
ggtctaaagg tagaatgtga atattgccac agagttcatt gctctcagta taagatttta
4680
ctttattaat gcagaaggaa tatggatata tttctttaag tctgcagatt tttttattat
4740
ggtgcagctt ttttttaatt atgtttttta aattatacag ttgaaaaata tgccatttca
4800
taaagtctga ggattttcgt caaccttact gaaacacact ggtgctttca tcatcagagg
4860
tcaaattatt atgataacta ttccattaag ttgccaacac atttgtcgtg gttaccagtg
4920

cagcctgtca aattctgcta ttgacacag ctttggaag atttagttct tggtttttcc
 4980
 gttttgtatt agaagactg ttacagtttt atttggctgt ttaaagccaa attcagctat
 5040
 ttaattatgg ttatcatggac actgttgagc aatgtacagt gtatgggtgtg cttacctgtc
 5100
 cactctagag cattgcttac aggttttttg ttttttaaga tgctgtgctg taaaatactg
 5160
 tcatacttgc tatttcttgg tacagtgtag tttttccct ttcatttgaa taaaagcatg
 5220
 gcaccaaaaa aaaaaaaaaa aaaaa
 5245

<210> 1316

<211> 856

<212> PRT

<213> Homo sapiens

<400> 1316

Met	Asp	Glu	Asp	Ser	Ser	Leu	Arg	Asp	Tyr	Thr	Val	Ser	Leu	Asp	Ser
1				5					10					15	
Asp	Met	Asp	Asp	Ala	Ser	Lys	Leu	Leu	Gln	Asp	Tyr	Asp	Ile	Arg	Thr
			20					25					30		
Gly	Asn	Thr	Arg	Glu	Ala	Leu	Ser	Pro	Cys	Pro	Ser	Thr	Val	Ser	Thr
		35					40					45			
Lys	Ser	Gln	Pro	Gly	Ser	Ser	Ala	Ser	Ser	Ser	Ser	Gly	Val	Lys	Met
	50					55					60				
Thr	Ser	Phe	Ala	Glu	Gln	Lys	Phe	Arg	Lys	Leu	Asn	His	Thr	Asp	Gly
65					70					75				80	
Lys	Ser	Ser	Gly	Ser	Ser	Ser	Gln	Lys	Thr	Thr	Pro	Glu	Gly	Ser	Glu
			85					90						95	
Leu	Asn	Ile	Pro	His	Val	Val	Ala	Trp	Ala	Gln	Ile	Pro	Glu	Glu	Thr
			100					105					110		
Gly	Leu	Pro	Gln	Gly	Arg	Asp	Thr	Thr	Gln	Leu	Leu	Ala	Ser	Glu	Met
		115					120					125			
Val	His	Leu	Arg	Met	Lys	Leu	Glu	Glu	Lys	Arg	Arg	Ala	Ile	Glu	Ala
		130				135					140				
Gln	Lys	Lys	Lys	Met	Glu	Ala	Ala	Phe	Thr	Lys	Gln	Arg	Gln	Lys	Met
145				150						155				160	
Gly	Arg	Thr	Ala	Phe	Leu	Thr	Val	Val	Lys	Lys	Lys	Gly	Asp	Gly	Ile
			165						170					175	
Ser	Pro	Leu	Arg	Glu	Glu	Ala	Ala	Gly	Ala	Glu	Asp	Glu	Lys	Val	Tyr
			180					185					190		
Thr	Asp	Arg	Ala	Lys	Glu	Lys	Glu	Ser	Gln	Lys	Thr	Asp	Gly	Gln	Arg
		195					200					205			
Ser	Lys	Ser	Leu	Ala	Asp	Ile	Lys	Glu	Ser	Met	Glu	Asn	Pro	Gln	Ala
	210					215					220				
Lys	Trp	Leu	Lys	Ser	Pro	Thr	Thr	Pro	Ile	Asp	Pro	Glu	Lys	Gln	Trp
225				230						235				240	
Asn	Leu	Ala	Ser	Pro	Ser	Glu	Glu	Thr	Leu	Asn	Glu	Gly	Glu	Ile	Leu
			245					250						255	
Glu	Tyr	Thr	Lys	Ser	Ile	Glu	Lys	Leu	Asn	Ser	Ser	Leu	His	Phe	Leu
		260						265					270		
Gln	Gln	Glu	Met	Gln	Arg	Leu	Ser	Leu	Gln	Gln	Glu	Met	Leu	Met	Gln

275 280 285
 Met Arg Glu Gln Gln Ser Trp Val Ile Ser Pro Pro Gln Pro Ser Pro
 290 295 300
 Gln Lys Gln Ile Arg Asp Phe Lys Pro Ser Lys Gln Ala Gly Leu Ser
 305 310 315 320
 Ser Ala Ile Ala Pro Phe Ser Ser Asp Ser Pro Arg Pro Thr His Pro
 325 330 335
 Ser Pro Gln Ser Ser Asn Arg Lys Ser Ala Ser Phe Ser Val Lys Ser
 340 345 350
 Gln Arg Thr Pro Arg Pro Asn Glu Leu Lys Ile Thr Pro Leu Asn Arg
 355 360 365
 Thr Leu Thr Pro Pro Arg Ser Val Asp Ser Leu Pro Arg Leu Arg Arg
 370 375 380
 Phe Ser Pro Ser Gln Val Pro Ile Gln Thr Arg Ser Phe Val Cys Phe
 385 390 395 400
 Gly Asp Asp Gly Glu Pro Gln Leu Lys Glu Ser Lys Pro Lys Glu Glu
 405 410 415
 Val Lys Lys Glu Glu Leu Glu Ser Lys Gly Thr Leu Glu Gln Arg Gly
 420 425 430
 His Asn Pro Glu Glu Lys Glu Ile Lys Pro Phe Glu Ser Thr Val Ser
 435 440 445
 Glu Val Leu Ser Leu Pro Val Thr Glu Thr Val Cys Leu Thr Pro Asn
 450 455 460
 Glu Asp Gln Leu Asn Gln Pro Thr Glu Pro Pro Lys Pro Val Phe
 465 470 475 480
 Pro Pro Thr Ala Pro Lys Asn Val Asn Leu Ile Glu Val Ser Leu Ser
 485 490 495
 Asp Leu Lys Pro Pro Glu Lys Ala Asp Val Pro Val Glu Lys Tyr Asp
 500 505 510
 Gly Glu Ser Asp Lys Glu Gln Phe Asp Asp Asp Gln Lys Val Cys Cys
 515 520 525
 Gly Phe Phe Phe Lys Asp Asp Gln Lys Ala Glu Asn Asp Met Ala Met
 530 535 540
 Lys Arg Ala Ala Leu Leu Glu Lys Arg Leu Arg Arg Glu Lys Glu Thr
 545 550 555 560
 Gln Leu Arg Lys Gln Gln Leu Glu Ala Glu Met Glu His Lys Lys Glu
 565 570 575
 Glu Thr Arg Arg Lys Thr Glu Glu Glu Arg Gln Lys Lys Glu Asp Glu
 580 585 590
 Arg Ala Arg Arg Glu Phe Ile Arg Gln Glu Tyr Met Arg Arg Lys Gln
 595 600 605
 Leu Lys Leu Met Glu Asp Met Asp Thr Val Ile Lys Pro Arg Pro Gln
 610 615 620
 Val Val Lys Gln Lys Lys Gln Arg Pro Lys Ser Ile His Arg Asp His
 625 630 635 640
 Ile Glu Ser Pro Lys Thr Pro Ile Lys Gly Pro Pro Val Ser Ser Leu
 645 650 655
 Ser Leu Ala Ser Leu Asn Thr Gly Asp Asn Glu Ser Val His Ser Gly
 660 665 670
 Lys Arg Thr Pro Arg Ser Glu Ser Val Glu Gly Phe Leu Ser Pro Ser
 675 680 685
 Arg Cys Gly Ser Arg Asn Gly Glu Lys Asp Trp Glu Asn Ala Ser Thr
 690 695 700
 Thr Ser Ser Val Ala Ser Gly Thr Glu Tyr Thr Gly Pro Lys Leu Tyr

705		710		715		720									
Lys	Glu	Pro	Ser	Ala	Lys	Ser	Asn	Lys	His	Ile	Ile	Gln	Asn	Ala	Leu
				725					730					735	
Ala	His	Cys	Cys	Leu	Ala	Gly	Lys	Val	Asn	Glu	Gly	Gln	Lys	Lys	Lys
				740					745					750	
Ile	Leu	Glu	Glu	Met	Glu	Lys	Ser	Asp	Ala	Asn	Asn	Phe	Leu	Ile	Leu
				755					760					765	
Phe	Arg	Asp	Ser	Gly	Cys	Gln	Phe	Arg	Ser	Leu	Tyr	Thr	Tyr	Cys	Pro
				770					775					780	
Glu	Thr	Glu	Glu	Ile	Asn	Lys	Leu	Thr	Gly	Ile	Gly	Pro	Lys	Ser	Ile
				785					790					800	
Thr	Lys	Lys	Met	Ile	Glu	Gly	Leu	Tyr	Lys	Tyr	Asn	Ser	Asp	Arg	Lys
				805					810					815	
Gln	Phe	Ser	His	Ile	Pro	Ala	Lys	Thr	Leu	Ser	Ala	Ser	Val	Asp	Ala
				820					825					830	
Ile	Thr	Ile	His	Ser	His	Leu	Trp	Gln	Thr	Lys	Arg	Pro	Val	Thr	Pro
				835					840					845	
Lys	Lys	Leu	Leu	Pro	Thr	Lys	Ala								
				850					855						

<210> 1317

<211> 1123

<212> DNA

<213> Homo sapiens

<400> 1317

```

ncggccgagg gcattcacct caacatggca gcaggcagcg gtgtccccgg cagtggactg
60
ggcgaggagg tgccctgtgc catgatggag ggtgtggcag cctacaccca gacagagccc
120
gagggtagcc agcctagcac catggacgcc accgcagtag caggcatcga gaccaagaaa
180
gagaaggagg acctgtgctt gctaaagaag gaggagaagg aggagccagt agccccggag
240
ctggcaacaa cgggtgcctga gagcgcagag cctgaggcag aggcggacgg ggaggagctg
300
gacggcagcg acatgtcagc catcatctat gaaatcccca aggagcctga gaagaggcgg
360
cggagcaagc ggtcgcgggt gatggatgct gacggcctgc tcgagatgtt cactgcccc
420
tacgagggct gcagccaagt ctacgtggcc ctcagcagct tccagaacca cgtcaatctt
480
gtgcatcgga aaggaaagac caaagtgtgc cctcatcctg gctgtggcaa gaagttctat
540
ttatccaacc acctgcggcg gcacatgac atccattcag gtgtccgtga attcacctgc
600
gagacctgcg gcaagtcctt caagaggaag aaccacctgg aggtacatcg gcgcacccac
660
accggcgaga ccccccctga gtgcgtgatc tgtggctacc agtgccggca gcgcgcgtcg
720
ctcaactggc acatgaagaa gcacactgcg gaggtgcagt acaacttcac gtgcgatgcc
780
tgcgggaagc gcttcgagaa gctggacagc gtcaagtccc acacgctcaa aagccacccc
840

```


gatcacaagc ccacctgacc cacctgacca ctgaccgccc ctatttatcc gtccgctcgg
 900
 acaccacagc ccgggcttgc cggggcctgg acagctgcga gggccggccg gaccgcgggc
 960
 cggaaggagc gccccgccc cgccccagag ctggcgcccc tgggcaggtt ccccaccccg
 1020
 cccaccgca tccttctcgg agctggtgcc tggggctgca ttgctggaac tgtgtcaaga
 1080
 gagcagagtg agattaaaga gcgagaaagg aaaaaaaaaa aaa
 1123

<210> 1318

<211> 285

<212> PRT

<213> Homo sapiens

<400> 1318

Xaa	Ala	Glu	Gly	Ile	His	Leu	Asn	Met	Ala	Ala	Gly	Ser	Gly	Val	Pro
1				5					10					15	
Gly	Ser	Gly	Leu	Gly	Glu	Glu	Val	Pro	Cys	Ala	Met	Met	Glu	Gly	Val
			20					25					30		
Ala	Ala	Tyr	Thr	Gln	Thr	Glu	Pro	Glu	Gly	Ser	Gln	Pro	Ser	Thr	Met
		35				40					45				
Asp	Ala	Thr	Ala	Val	Ala	Gly	Ile	Glu	Thr	Lys	Lys	Glu	Lys	Glu	Asp
	50					55				60					
Leu	Cys	Leu	Leu	Lys	Lys	Glu	Glu	Lys	Glu	Glu	Pro	Val	Ala	Pro	Glu
65				70					75					80	
Leu	Ala	Thr	Thr	Val	Pro	Glu	Ser	Ala	Glu	Pro	Glu	Ala	Glu	Ala	Asp
			85						90					95	
Gly	Glu	Glu	Leu	Asp	Gly	Ser	Asp	Met	Ser	Ala	Ile	Ile	Tyr	Glu	Ile
			100					105					110		
Pro	Lys	Glu	Pro	Glu	Lys	Arg	Arg	Arg	Ser	Lys	Arg	Ser	Arg	Val	Met
	115					120						125			
Asp	Ala	Asp	Gly	Leu	Leu	Glu	Met	Phe	His	Cys	Pro	Tyr	Glu	Gly	Cys
	130					135					140				
Ser	Gln	Val	Tyr	Val	Ala	Leu	Ser	Ser	Phe	Gln	Asn	His	Val	Asn	Leu
145					150					155				160	
Val	His	Arg	Lys	Gly	Lys	Thr	Lys	Val	Cys	Pro	His	Pro	Gly	Cys	Gly
			165					170						175	
Lys	Lys	Phe	Tyr	Leu	Ser	Asn	His	Leu	Arg	Arg	His	Met	Ile	Ile	His
		180						185					190		
Ser	Gly	Val	Arg	Glu	Phe	Thr	Cys	Glu	Thr	Cys	Gly	Lys	Ser	Phe	Lys
	195					200						205			
Arg	Lys	Asn	His	Leu	Glu	Val	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Thr
	210					215					220				
Pro	Leu	Gln	Cys	Val	Ile	Cys	Gly	Tyr	Gln	Cys	Arg	Gln	Arg	Ala	Ser
225				230					235					240	
Leu	Asn	Trp	His	Met	Lys	Lys	His	Thr	Ala	Glu	Val	Gln	Tyr	Asn	Phe
			245					250						255	
Thr	Cys	Asp	Ala	Cys	Gly	Lys	Arg	Phe	Glu	Lys	Leu	Asp	Ser	Val	Lys
			260					265						270	
Phe	His	Thr	Leu	Lys	Ser	His	Pro	Asp	His	Lys	Pro	Thr			
	275						280					285			

<210> 1319
 <211> 538
 <212> DNA
 <213> Homo sapiens

<400> 1319
 cgggagcggga gcccagctct tggctggtga tgagggcctg gaagcagatg gcctctcagt
 60
 cctccatttg ggaggactcc caaaatagtg caggctcgag ggggtgggga atggctcctg
 120
 ctgaatgtgt gaatgggtcc ctgggtgctt tccttcctct gggagctccg tgggagagtg
 180
 gagtcgatgc caagtcagag agcagttggg gaggaaccca gaagccctgg gatggtgtct
 240
 gcatgggaat gtgtagggag gcagccacaa tgggcctggg ccttcctttc tctccttct
 300
 gtccccctcc cccatcccc tctctcctcc ctctcctctg gaaacccagt actgggggaa
 360
 acacacacag gtgggatgca ggtatccggg aagctcatag aagctgccac gctgctggag
 420
 tttgcctcat acaggagcgt gggcatgccc cgcgtggagt tgtgctgtgt gtgtgcatat
 480
 gtatggttgt gtgtgcatgg ggggtgggga ttctgacctg gggtcactcc caaagctt
 538

<210> 1320
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 1320
 Met Arg Ala Trp Lys Gln Met Ala Ser Gln Ser Ser Ile Trp Glu Asp
 1 5 10 15
 Ser Gln Asn Ser Ala Gly Ser Arg Gly Trp Gly Met Ala Pro Ala Glu
 20 25 30
 Cys Val Asn Gly Ser Leu Gly Ala Phe Leu Pro Leu Gly Ala Pro Trp
 35 40 45
 Glu Ser Gly Val Asp Ala Lys Ser Glu Ser Ser Trp Gly Gly Thr Gln
 50 55 60
 Lys Pro Trp Asp Gly Val Cys Met Gly Met Cys Arg Glu Ala Ala Thr
 65 70 75 80
 Met Gly Leu Gly Leu Pro Phe Ser Pro Ser Cys Pro Pro Pro Pro Ser
 85 90 95
 Pro Ser Leu Leu Pro Ser Phe Trp Lys Pro Ser Thr Gly Gly Asn Thr
 100 105 110
 His Arg Trp Asp Ala Gly Ile Arg Glu Ala His Arg Ser Cys His Ala
 115 120 125
 Ala Gly Val Cys Leu Ile Gln Glu Arg Gly His Ala Pro Arg Gly Val
 130 135 140
 Val Leu Cys Val Cys Ile Cys Met Val Val Cys Ala Trp Gly Trp Gly
 145 150 155 160
 Ile Leu Thr Trp Gly His Ser Gln Ser
 165

<210> 1321
<211> 1292
<212> DNA
<213> Homo sapiens

<400> 1321
nacgcgtacc gtcgctgac tccccctgg tcgtgaccaa cgcggccggg ttcaccatct
60
cggaacgcag caatgatccg gcgtcagtgc tctcagtcac cgcaggatga cccggtgcaa
120
cgccccgata gtcacaggta cgcaacgacg aagcagggat cgctcagacc cgggcacgtc
180
atcgtaaga agatttaca caacaatgtc cttctcggcg tcaacggttc ggggaccgaa
240
atggtcgtca atgctcgcgg tatcgctac ggacgacacc gcggggagat cgtcgatgcc
300
tcgtcggccc agcgatatgt cgcagagggt gcctatcgca cgaccgccat cgcatactg
360
ctaacgaacg cactcacac cgagggtgca gtggcacagg caatcgtcga attggcgcgc
420
gaagagctgg gactcccca tgcccgcgg atgatgctgc ccatcctcga tcacctcgtc
480
gcagctgtgc accgagctaa gcagggggcc gtcacgatt tccccctgga atgggaagtc
540
cgtcagctct atccccgatga ggcggaactg ggccgacgcg ctgtcgaaat cgtcgacggg
600
gctctcgaaa tccatttgca acccgaggaa tgggtggcat tctccctgca cttcatcaat
660
cagcgggtggg acagtagaga cgtttcgcgg accatgtcga tgactcagac gatctgcgac
720
gttttcaccg agctggagga cctgtggcac gttgagatcg accgttcgtc catgagcgca
780
tcccgcttcg tccccacct tcgctatctg ttcgctcggg cctcggacaa caagcagctc
840
tctcacgttg acctggacat tgtgggactc atgtcagatc gctaccaga agccacattg
900
gcagctagcc aagtggccga gcacatatcg aaagcaatcg gcaacgacct gacggaagcc
960
gaaatcaact acatcgctt acacaccacc cggctctaca acgaggatgat ggggatggat
1020
gactgacgat cgcgcacctg ttaaggctca tcggtagtgg gcaatacaca aaatggcgat
1080
gaccttctg ccggaaagcc agcaccaaag tcaccagat caaaattcag atgcgtgcct
1140
aattcccacc ccgacatcca agaggtcagg ggggggttgt tgggggtggg ggggtggggg
1200
gggggggttt gcatgctcag ggggtggggc tttgtgaag ccatcatgaa gttgcaaacc
1260
caggactgtt ccactagtaa agccccctgcc tt
1292

<210> 1322
<211> 317
<212> PRT

<213> Homo sapiens

<400> 1322

```

Met Ile Arg Arg Gln Cys Ser Gln Ser Pro Gln Asp Asp Pro Val Gln
 1           5           10           15
Arg Pro Asp Arg Ser Arg Tyr Ala Thr Thr Lys Gln Gly Ser Leu Arg
      20           25           30
Pro Gly His Val Ile Val Lys Lys Ile Tyr Asn Asn Asn Val Leu Leu
      35           40           45
Gly Val Asn Gly Ser Gly Thr Glu Met Val Val Asn Ala Arg Gly Ile
      50           55           60
Ala Tyr Gly Arg His Arg Gly Glu Ile Val Asp Ala Ser Ser Ala Gln
      65           70           75           80
Arg Tyr Val Ala Glu Gly Ala Tyr Arg Thr Thr Ala Ile Ala Ser Leu
      85           90           95
Leu Thr Asn Ala Thr His Thr Glu Val Arg Val Ala Gln Ala Ile Val
      100          105          110
Glu Leu Ala Arg Glu Glu Leu Gly Thr Pro His Ala Arg Arg Met Met
      115          120          125
Leu Pro Ile Leu Asp His Leu Val Ala Ala Val His Arg Ala Lys Gln
      130          135          140
Gly Ala Val Ile Asp Phe Pro Leu Glu Trp Glu Val Arg Gln Leu Tyr
      145          150          155          160
Pro Asp Glu Ala Glu Leu Gly Arg Arg Ala Val Glu Ile Val Asp Gly
      165          170          175
Ala Leu Glu Ile His Leu Gln Pro Glu Glu Trp Val Ala Phe Ser Leu
      180          185          190
His Phe Ile Asn Gln Arg Trp Asp Ser Arg Asp Val Ser Arg Thr Met
      195          200          205
Ser Met Thr Gln Thr Ile Cys Asp Val Phe Thr Glu Leu Glu Asp Leu
      210          215          220
Trp His Val Glu Ile Asp Arg Ser Ser Met Ser Ala Ser Arg Phe Val
      225          230          235          240
Thr His Leu Arg Tyr Leu Phe Ala Arg Ala Ser Asp Asn Lys Gln Leu
      245          250          255
Ser His Val Asp Leu Asp Ile Val Gly Leu Met Ser Asp Arg Tyr Pro
      260          265          270
Glu Ala Thr Leu Ala Ala Ser Gln Val Ala Glu His Ile Ser Lys Ala
      275          280          285
Ile Gly Asn Asp Leu Thr Glu Ala Glu Ile Asn Tyr Ile Ala Leu His
      290          295          300
Thr Thr Arg Leu Tyr Asn Glu Val Met Gly Met Asp Asp
      305          310          315

```

<210> 1323

<211> 306

<212> DNA

<213> Homo sapiens

<400> 1323

```

cgcgtgatgg gaatgcgtca ctatgatgtt cagttgattg gtggtatcac tctgcacgaa
60
ggcaaaattg ctgagatgcg tacaggtgaa ggtaaaaccc tgatgggtac tttagcgtgt
120

```


tacctcaatg cattgagtgg tcaggggtgtg catgtcatca cegtcaatga ctatcttgca
 180
 caacgtgatg ctgaactcaa ccgcccatta tttgagtttt tgggtttaag catcggtgtg
 240
 atttattcga tgcaaatgcc tgctgagaaa gcacaagctt atttagcaga cattacttac
 300
 ggtacc
 306

<210> 1324
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 1324
 Arg Val Met Gly Met Arg His Tyr Asp Val Gln Leu Ile Gly Gly Ile
 1 5 10 15
 Thr Leu His Glu Gly Lys Ile Ala Glu Met Arg Thr Gly Glu Gly Lys
 20 25 30
 Thr Leu Met Gly Thr Leu Ala Cys Tyr Leu Asn Ala Leu Ser Gly Gln
 35 40 45
 Gly Val His Val Ile Thr Val Asn Asp Tyr Leu Ala Gln Arg Asp Ala
 50 55 60
 Glu Leu Asn Arg Pro Leu Phe Glu Phe Leu Gly Leu Ser Ile Gly Val
 65 70 75 80
 Ile Tyr Ser Met Gln Met Pro Ala Glu Lys Ala Gln Ala Tyr Leu Ala
 85 90 95
 Asp Ile Thr Tyr Gly Thr
 100

<210> 1325
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 1325
 gtgcacatgg gccactggc gaatccgacg cgcggcctac ggcgcgcaat actggcggcc
 60
 attgtcgccg catgttccgt ctccgctcat gccggaagct ggccagagaa accgatcacg
 120
 atggtcgtgc cgtttcccgc cggaggcggc accgatctcg tggcgcgctc gatccagccg
 180
 cttttgcagc gcgaactcgg acaaccgggtg gtgacgcaca accgcagcgg cgcaggcggc
 240
 acgctcggct ccagcttcgt ggcgcggggc gttgccgacg gctacacggc tggcgtggtc
 300
 accacgagca cccacgcggt aagcgtcgcg ctctatcccc ggctggccta caaccgcaca
 360
 ggggactttg catacgccgg cttcatcggc n
 391

<210> 1326
 <211> 130
 <212> PRT

<213> Homo sapiens

<400> 1326

```

Val His Met Gly Pro Leu Ala Asn Pro Thr Arg Gly Leu Arg Arg Ala
 1           5           10           15
Ile Leu Ala Ala Ile Val Ala Ala Cys Ser Val Ser Ala His Ala Gly
      20           25           30
Ser Trp Pro Glu Lys Pro Ile Thr Met Val Val Pro Phe Pro Ala Gly
      35           40           45
Gly Gly Thr Asp Leu Val Ala Arg Ser Ile Gln Pro Leu Leu Gln Arg
      50           55           60
Glu Leu Gly Gln Pro Val Val Ile Asp Asn Arg Ser Gly Ala Gly Gly
65           70           75           80
Thr Leu Gly Ser Ser Phe Val Ala Arg Ala Val Ala Asp Gly Tyr Thr
      85           90           95
Ala Gly Val Val Thr Thr Ser Thr His Ala Val Ser Val Ala Leu Tyr
      100           105           110
Pro Arg Leu Ala Tyr Asn Pro Thr Ala Asp Phe Ala Tyr Ala Gly Phe
      115           120           125
Ile Gly
      130

```

<210> 1327

<211> 324

<212> DNA

<213> Homo sapiens

<400> 1327

```

nnacgcgtga ttccggaact gcagcagttc gagcagtcgc atggacagag cgacgggagc
60
tactggctat gggtcgagct gctgtggcga gactatttcc gctttctgca tcttcggcat
120
ggcgctcggc tgtaccgcgc acgcggcctc gcaaatgagg tacggcacgc ggagcgccca
180
gatgtgcagg gcttcgagcg ctggcgctcg gcatcgaccg gcgagccgct cgtcgatgcc
240
gcatgacgag agctggagac caccggctac ctcagcaaca ggctcagaca ggtggtcgcg
300
agctacctcg tgcacgagct ggga
324

```

<210> 1328

<211> 108

<212> PRT

<213> Homo sapiens

<400> 1328

```

Xaa Arg Val Ile Ser Glu Leu Gln Gln Phe Glu Gln Ser His Gly Gln
 1           5           10           15
Ser Asp Gly Ser Tyr Trp Leu Trp Phe Glu Leu Leu Trp Arg Asp Tyr
      20           25           30
Phe Arg Phe Leu His Leu Arg His Gly Ala Arg Leu Tyr Arg Ala Arg
      35           40           45
Gly Leu Ala Asn Glu Val Arg His Ala Glu Arg Pro Asp Val Gln Gly

```



```

      50              55              60
Phe Glu Arg Trp Arg Arg Ala Ser Thr Gly Glu Pro Leu Val Asp Ala
65              70              75              80
Ala Met Arg Glu Leu Glu Thr Thr Gly Tyr Leu Ser Asn Arg Leu Arg
      85              90              95
Gln Val Val Ala Ser Tyr Leu Val His Glu Leu Gly
      100              105

```

<210> 1329
 <211> 438
 <212> DNA
 <213> Homo sapiens

```

<400> 1329
ngtgcacgct tagcattaga tttagcttcc agtggcaaaa ctacgctcgtt gatttcaagc
60
ggcgatatcg gcatttacgc gatggcgacc ctggtgtttg aactgctgga tagacaactc
120
cagggccttg aagaccatcc tgaatggtta gatgttgaaa tcgatgtggt acctggcatc
180
tctgcaatgc aagctggtgc aagtcgtatt ggtgcatgt taggtcatga cttttgtacg
240
gtgagtttgt ctgatttatt aacccttgg gaaactatta ataaacgtat tcatagtgc
300
ggtgaggggg attttgttat ctctttttat aaccctgttt ctaagaaacg tgattggcag
360
cttaaccacg cgcgtgatgt attattgaaa taccgtccag catcaacgcc agttttatta
420
ggtcgtcagt tgacgcgt
438

```

<210> 1330
 <211> 146
 <212> PRT
 <213> Homo sapiens

```

<400> 1330
Xaa Ala Arg Leu Ala Leu Asp Leu Ala Ser Ser Gly Lys Thr Thr Ser
1              5              10              15
Leu Ile Ser Ser Gly Asp Ile Gly Ile Tyr Ala Met Ala Thr Leu Val
      20              25              30
Phe Glu Leu Leu Asp Arg Gln Leu Gln Gly Leu Glu Asp His Pro Glu
      35              40              45
Trp Leu Asp Val Glu Ile Asp Val Val Pro Gly Ile Ser Ala Met Gln
      50              55              60
Ala Gly Ala Ser Arg Ile Gly Ala Met Leu Gly His Asp Phe Cys Thr
65              70              75              80
Val Ser Leu Ser Asp Leu Leu Thr Pro Trp Glu Thr Ile Asn Lys Arg
      85              90              95
Ile His Ser Ala Gly Glu Gly Asp Phe Val Ile Ser Phe Tyr Asn Pro
      100              105              110
Val Ser Lys Lys Arg Asp Trp Gln Leu Asn His Ala Arg Asp Val Leu
      115              120              125
Leu Lys Tyr Arg Pro Ala Ser Thr Pro Val Leu Leu Gly Arg Gln Leu

```


130 135 140
 Thr Arg
 145

<210> 1331
 <211> 453
 <212> DNA
 <213> Homo sapiens

<400> 1331
 gcgtaccgct ccgcggaact ggtgatgatg accgaggcac cgggatgcgg aatcccctgg
 60
 catctttctgg ccggcatcgg acgcatcgaa tccggtcacg ccaacggcgg caagacgacc
 120
 tcggtgggta cgaacgtcac cccgatcctc ggcccatcc tcgacggacg gctggcaggg
 180
 aacgaagtca ttcgggacac cgacaagggc aatcgacggc gaccactca cgaccgcgcc
 240
 gtcgggcca tgcagttcat tccggccacc tgggcccggat atgccagcga cggcaacggg
 300
 gacggaatca aggaccccaa caacgtcttc gatgcggcac tctcggcagc gaagtacctc
 360
 tgcagcggcg gactcaacct gcgcgatgtc gcccaggaga ccaaagctgt tctgcgatac
 420
 aacaactcgg ccgcttacgc agcaaactg atc
 453

<210> 1332
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 1332
 Ala Tyr Arg Ser Ala Glu Leu Val Met Met Thr Glu Ala Pro Gly Cys
 1 5 10 15
 Gly Ile Pro Trp His Leu Leu Ala Gly Ile Gly Arg Ile Glu Ser Gly
 20 25 30
 His Ala Asn Gly Gly Lys Thr Thr Ser Val Gly Thr Asn Val Thr Pro
 35 40 45
 Ile Leu Gly Pro Ile Leu Asp Gly Arg Leu Ala Gly Asn Glu Val Ile
 50 55 60
 Arg Asp Thr Asp Lys Gly Asn Arg Arg Arg Pro Thr His Asp Arg Ala
 65 70 75 80
 Val Gly Pro Met Gln Phe Ile Pro Ala Thr Trp Ala Gly Tyr Ala Ser
 85 90 95
 Asp Gly Asn Gly Asp Gly Ile Lys Asp Pro Asn Asn Val Phe Asp Ala
 100 105 110
 Ala Leu Ser Ala Ala Lys Tyr Leu Cys Ser Gly Gly Leu Asn Leu Arg
 115 120 125
 Asp Val Ala Gln Glu Thr Lys Ala Val Leu Arg Tyr Asn Asn Ser Ala
 130 135 140
 Ala Tyr Ala Ala Asn Val Ile
 145 150

<210> 1333
 <211> 540
 <212> DNA
 <213> Homo sapiens

<400> 1333
 acgcgtcgcc cacactgttg ccgccgaggc ggctcgagcc ggggtgtgagg aaggatccgc
 60
 ggcacagctc gtcggtcaag atgggtctag tgctgtcgt atggcggcgg aggcacccgc
 120
 gcgaagggct aaagcggatg gactaagcca gcttgtcatc gatgtcaatg gagacgccgt
 180
 cagcgtcgcg acggaaatca cccggcctac tcgtctatta gcccttattg gactaaccga
 240
 agtacacggt cgggcgagcg aaatgtgtat tttgtgggt cgctgaggcc gttgcagcga
 300
 tacaatgatg aggtgtctaa gtattttccg gtccaccggg agaaccgcga gcagcgttct
 360
 ctcaatcaga tcgtcgacat cctgcaccat ggcggtctta tcgcctaccc gacagacacg
 420
 gggtatgcct tcggtgcccg gntagggaaat aaggatgccg tggaccggat tcgcaaactt
 480
 cgccagttat ttgacaagca tcacttcacc ctggatcatga gccagtttgc gcaggttggc
 540

<210> 1334
 <211> 70
 <212> PRT
 <213> Homo sapiens

<400> 1334
 Val His Pro Glu Asn Pro Gln Gln Arg Ser Leu Asn Gln Ile Val Asp
 1 5 10 15
 Ile Leu His His Gly Gly Leu Ile Ala Tyr Pro Thr Asp Thr Gly Tyr
 20 25 30
 Ala Phe Gly Ala Arg Xaa Gly Asn Lys Asp Ala Val Asp Arg Ile Arg
 35 40 45
 Lys Leu Arg Gln Leu Phe Asp Lys His His Phe Thr Leu Val Met Ser
 50 55 60
 Gln Phe Ala Gln Val Gly
 65 70

<210> 1335
 <211> 748
 <212> DNA
 <213> Homo sapiens

<400> 1335
 nctctcatatc tttttttccc tattcctatc cccctctct cgcaccgcgt gaagcgttct
 60
 gtgaatgcca agaagaagcg tcgtgaggtc ctgatcagg cctccgggta ccgtgggtcag
 120
 cgctcgcgcc tgtaccgcaa ggccaaggag cagaccctcc attcggccac ttattcgttc
 180

cgtgaccgctc gtgctaagaa gggtagacttc cgctcgctgt ggatccagcg catcaatgct
 240
 gcttcccgtg cccagggcat gacctacaac cgtttcatca acggtctgaa gaacgctggc
 300
 gtcgaggtcg accgcaagat gctcgctgag cttgccgtct cgcacattaa cgccttcaac
 360
 agcctggctcg aggtcgctaa ggctagccag cgcgagaacg ctgctgcctg agatggccat
 420
 gactggcggg ccgaacgacg actatttggg atgggatcgc atctcgaagg ggtcattgcg
 480
 ttccggccgt cgtctttcat ctccggcggg acgcgatgag tccgggctgt tcttggtaga
 540
 aggtgcgcag gcagttcgtg aagccctagc atggccgggt aaagtcaatt tgttggaac
 600
 ctccgaccca gctcgcgatg ctgagcatgt cgaggtggct acatgctcgtg gcgttcgggt
 660
 cgtggtgctc actgacgagg atgtcaatgc gctttctgat accgtcacca gtcaggggat
 720
 cttcgcggta tgtcggcagg ttacgcgt
 748

<210> 1336

<211> 136

<212> PRT

<213> Homo sapiens

<400> 1336

Xaa	Leu	Ile	Leu	Phe	Phe	Pro	Ile	Pro	Ile	Pro	Pro	Leu	Ser	Asp	Arg
1			5				10							15	
Val	Lys	Arg	Ser	Val	Asn	Ala	Lys	Lys	Lys	Arg	Arg	Glu	Val	Leu	Asp
			20				25						30		
Gln	Ala	Ser	Gly	Tyr	Arg	Gly	Gln	Arg	Ser	Arg	Leu	Tyr	Arg	Lys	Ala
			35				40					45			
Lys	Glu	Gln	Thr	Leu	His	Ser	Ala	Thr	Tyr	Ser	Phe	Arg	Asp	Arg	Arg
			50			55					60				
Ala	Lys	Lys	Gly	Asp	Phe	Arg	Ser	Leu	Trp	Ile	Gln	Arg	Ile	Asn	Ala
65				70					75					80	
Ala	Ser	Arg	Ala	Gln	Gly	Met	Thr	Tyr	Asn	Arg	Phe	Ile	Asn	Gly	Leu
			85					90					95		
Lys	Asn	Ala	Gly	Val	Glu	Val	Asp	Arg	Lys	Met	Leu	Ala	Glu	Leu	Ala
			100					105					110		
Val	Ser	Asp	Ile	Asn	Ala	Phe	Asn	Ser	Leu	Val	Glu	Val	Ala	Lys	Ala
			115				120						125		
Ser	Gln	Pro	Gln	Asn	Ala	Ala	Ala								
			130				135								

<210> 1337

<211> 364

<212> DNA

<213> Homo sapiens

<400> 1337

acgcgtgagg ccaggccact gggcaccgcc gttagccagg gcagcctcct tcagtggtca
 60

aggcagactc agctcatggg cgagcatgtc agtgaagggc acagcaaggc tcacgagtgg
 120
 gcctcttgcc tcatggtcag tgtgggtcag tgctttcgct gtagagact acaggggttc
 180
 tctgcctcac catgggggac gattgggtct gggtcacttc ctgctgtggg acctgtcctg
 240
 ggcactgcag gatgtggggc agggctccta cgtgccagct accagatgcc agcagcaccc
 300
 ccagaagtga caaccacaac catctccagg tgttgccagt gtcccctggg ggtagagtg
 360
 gccc
 364

<210> 1338

<211> 96

<212> PRT

<213> Homo sapiens

<400> 1338

Met	Gly	Glu	His	Val	Ser	Glu	Gly	His	Ser	Lys	Ala	His	Glu	Trp	Ala
1				5				10					15		
Ser	Cys	Leu	Met	Val	Ser	Val	Gly	Gln	Cys	Phe	Arg	Cys	Met	Arg	Leu
		20					25					30			
Gln	Gly	Phe	Ser	Ala	Ser	Pro	Trp	Gly	Thr	Ile	Gly	Ser	Gly	Ser	Leu
	35					40					45				
Pro	Ala	Val	Gly	Pro	Val	Leu	Gly	Thr	Ala	Gly	Cys	Gly	Ala	Gly	Leu
	50				55					60					
Leu	Arg	Ala	Ser	Tyr	Gln	Met	Pro	Ala	Ala	Pro	Pro	Glu	Val	Thr	Thr
65				70				75						80	
Thr	Thr	Ile	Ser	Arg	Cys	Cys	Gln	Cys	Pro	Leu	Gly	Val	Arg	Val	Ala
			85					90						95	

<210> 1339

<211> 653

<212> DNA

<213> Homo sapiens

<400> 1339

cgcgttgtct tcaacatcga cgaaaagcag tgcattgacc tggcgaccg tggtagtgag
 60
 tgggtcgtca ggtacgccga caagtacctc ggcgacgttg agttcggcta cgagtactct
 120
 ccggagatgt ttagccagac ccgcacggac ttcgctatcg acgtctgtca ctccgtgatg
 180
 gacgtgtggc agccggggcc aggcctgtag attatcctta atctgccggc taccgtcgag
 240
 atgagtactc cgaacaccta cgccgaccaa atcgagtact tctgccgcaa tatccgtgat
 300
 cgtgagcacg tgtgcgtctc tttgcacccg cacaatgac gtggcacggc gatcgcggcc
 360
 gccgagttcg cgcagatggc gggcgccgat cgcgtcgagg gctgtttctt tggccccggc
 420
 gagcgcggcg gcaccgtcga cctggtcacc ctgggcatga acctcgtcag ccagggagtt
 480

gacgccggta tcgacttctc cgacatgccc aagatccgcc gcaccgtcga gtactgcacc
 540
 tgtctgccag taccggcccc ccagccctac tccggcgatc tggctcttcac cgccttctcc
 600
 gggtcccacc aggacgccat caagaagggt ctggaagacc tggccccggcg cgc
 653

<210> 1340

<211> 217

<212> PRT

<213> Homo sapiens

<400> 1340

Arg	Val	Val	Phe	Asn	Ile	Asp	Glu	Lys	Gln	Cys	Ile	Asp	Leu	Ala	His
1				5					10					15	
Arg	Gly	Thr	Glu	Trp	Val	Val	Arg	Tyr	Ala	Asp	Lys	Tyr	Leu	Gly	Asp
			20					25					30		
Val	Glu	Phe	Gly	Tyr	Glu	Tyr	Ser	Pro	Glu	Met	Phe	Ser	Gln	Thr	Arg
		35					40					45			
Thr	Asp	Phe	Ala	Ile	Asp	Val	Cys	His	Ser	Val	Met	Asp	Val	Trp	Gln
	50				55						60				
Pro	Gly	Pro	Gly	Arg	Glu	Ile	Ile	Leu	Asn	Leu	Pro	Ala	Thr	Val	Glu
65				70				75						80	
Met	Ser	Thr	Pro	Asn	Thr	Tyr	Ala	Asp	Gln	Ile	Glu	Tyr	Phe	Cys	Arg
			85					90					95		
Asn	Ile	Arg	Asp	Arg	Glu	His	Val	Cys	Val	Ser	Leu	His	Pro	His	Asn
		100						105					110		
Asp	Arg	Gly	Thr	Ala	Ile	Ala	Ala	Glu	Phe	Ala	Gln	Met	Ala	Gly	
	115					120					125				
Ala	Asp	Arg	Val	Glu	Gly	Cys	Phe	Phe	Gly	Pro	Gly	Glu	Arg	Pro	Gly
	130					135					140				
Thr	Val	Asp	Leu	Val	Thr	Leu	Gly	Met	Asn	Leu	Val	Ser	Gln	Gly	Val
145				150						155				160	
Asp	Ala	Gly	Ile	Asp	Phe	Ser	Asp	Met	Pro	Lys	Ile	Arg	Arg	Thr	Val
			165					170					175		
Glu	Tyr	Cys	Thr	Cys	Leu	Pro	Val	Pro	Ala	Arg	Gln	Pro	Tyr	Ser	Gly
		180					185					190			
Asp	Leu	Val	Phe	Thr	Ala	Phe	Ser	Gly	Ser	His	Gln	Asp	Ala	Ile	Lys
	195						200					205			
Lys	Gly	Leu	Glu	Asp	Leu	Ala	Arg	Arg							
	210					215									

<210> 1341

<211> 666

<212> DNA

<213> Homo sapiens

<400> 1341

accggttgct gatttccttg ttggagtctt caccactatg agcagtgact ccattgtttt
 60
 gcaaagtctt ttgccttgct ttgatcatat tttcacaact ggattcccaa cagaagtgtg
 120
 gcaatctgta atagaaaagt tggcaaagaa aggattatgg cattcatttc tgcttctgtc
 180

agcaaaaaaa gaccgattac caagaaatat tcatgtccca gagttatcac tgaaaagtct
 240
 ctttgagaaa tacgttttca ttggacttta tgagaagatg gaacaagtgc ccaagttagt
 300
 ccagtggctc atctccattg gtgcaagtgt tgagactata ggaccgtatc cccttcatgc
 360
 cctcatgcga ctctgtatcc aagccagaga aaaccatctt ttccgggtgg taatggatca
 420
 caagcccagag tggaaaggcc gcattaacca gaaggatggg gatggctgca ctgtcctgca
 480
 cgctcgtcgt gcccactccc caggatacct cgtaagcga caaacagagg atgtgcagat
 540
 gctcctgcgc tttggggcag atcccacttt gctggatcga cagtctcggg ctgtttgtga
 600
 tgtcctgaag aggaataaga acttcaaagc catcgagaaa atcaacagtc acttagaaaa
 660
 gctagc
 666

<210> 1342

<211> 209

<212> PRT

<213> Homo sapiens

<400> 1342

Met	Ser	Ser	Asp	Ser	Ile	Val	Leu	Gln	Ser	Phe	Leu	Pro	Cys	Phe	Asp
1				5					10					15	
His	Ile	Phe	Thr	Thr	Gly	Phe	Pro	Thr	Glu	Val	Trp	Gln	Ser	Val	Ile
			20					25					30		
Glu	Lys	Leu	Ala	Lys	Lys	Gly	Leu	Trp	His	Ser	Phe	Leu	Leu	Leu	Ser
		35				40					45				
Ala	Lys	Lys	Asp	Arg	Leu	Pro	Arg	Asn	Ile	His	Val	Pro	Glu	Leu	Ser
	50				55					60					
Leu	Lys	Ser	Leu	Phe	Glu	Lys	Tyr	Val	Phe	Ile	Gly	Leu	Tyr	Glu	Lys
65				70					75					80	
Met	Glu	Gln	Val	Pro	Lys	Leu	Val	Gln	Trp	Leu	Ile	Ser	Ile	Gly	Ala
			85					90						95	
Ser	Val	Glu	Thr	Ile	Gly	Pro	Tyr	Pro	Leu	His	Ala	Leu	Met	Arg	Leu
		100				105						110			
Cys	Ile	Gln	Ala	Arg	Glu	Asn	His	Leu	Phe	Arg	Trp	Leu	Met	Asp	His
	115				120						125				
Lys	Pro	Glu	Trp	Lys	Gly	Arg	Ile	Asn	Gln	Lys	Asp	Gly	Asp	Gly	Cys
	130				135					140					
Thr	Val	Leu	His	Val	Val	Ala	Ala	His	Ser	Pro	Gly	Tyr	Leu	Val	Lys
145			150						155					160	
Arg	Gln	Thr	Glu	Asp	Val	Gln	Met	Leu	Arg	Phe	Gly	Ala	Asp	Pro	
		165						170					175		
Thr	Leu	Leu	Asp	Arg	Gln	Ser	Arg	Ser	Val	Val	Asp	Val	Leu	Lys	Arg
	180						185						190		
Asn	Lys	Asn	Phe	Lys	Ala	Ile	Glu	Lys	Ile	Asn	Ser	His	Leu	Glu	Lys
	195					200						205			

Leu

<210> 1343
 <211> 270
 <212> DNA
 <213> Homo sapiens

<400> 1343
 ccggaatgt gccgagttct cctgacgcac gaagtgatgt gtagtcgatg ctgcgaaaag
 60
 aaaagctgtg gaaaccgaaa tgagactcca tcggacccag tcataattga cagattcttt
 120
 ttaaaatttt tcctcaagtg caatcagaat tgtttgaaaa cagcaggaaa cccaagggac
 180
 atgagacggt ttcaggttgt gttgtcaaca acggtgaatg tggatggaca cgtcctggct
 240
 gtttctgaca acatgtttgt tcataacaac
 270

<210> 1344
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 1344
 Pro Glu Met Cys Arg Val Leu Leu Thr His Glu Val Met Cys Ser Arg
 1 5 10 15
 Cys Cys Glu Lys Lys Ser Cys Gly Asn Arg Asn Glu Thr Pro Ser Asp
 20 25 30
 Pro Val Ile Ile Asp Arg Phe Phe Leu Lys Phe Phe Leu Lys Cys Asn
 35 40 45
 Gln Asn Cys Leu Lys Thr Ala Gly Asn Pro Arg Asp Met Arg Arg Phe
 50 55 60
 Gln Val Val Leu Ser Thr Thr Val Asn Val Asp Gly His Val Leu Ala
 65 70 75 80
 Val Ser Asp Asn Met Phe Val His Asn Asn
 85 90

<210> 1345
 <211> 402
 <212> DNA
 <213> Homo sapiens

<400> 1345
 acgcgtttga aaccaccga tgacttgctg gtgatcctgg gtaccgcgt cagcaacttc
 60
 agcggcaccg acaacaccga cttctacgac ccgaccaagg ccgacaaccg tctcacctac
 120
 cgccagacgg gcgtcgtcac gccctatgcc ggcctcgtct acgacctgaa tgacatctgg
 180
 tcggtgtaca ccagctacac caagatctac aagccgcaga acagcaagga cgccgaccgc
 240
 aagttgctcg atccgattga aggtgacacc tacgaagccg ggctcaaggc agcgtttttc
 300
 gacggccgcc tgaacgccag ttttgccgca ttccgcatcg aacaggacaa cgtcgcacag
 360

tacgtttccg ggtttgagac cgactcgtgt atcgccatt gc
402

<210> 1346

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1346

Thr Arg Leu Lys Pro Thr Asp Asp Leu Ser Val Ile Leu Gly Thr Arg
1 5 10 15
Val Ser Asn Phe Ser Gly Thr Asp Asn Thr Asp Phe Tyr Asp Pro Thr
20 25 30
Lys Ala Asp Asn Arg Leu Thr Tyr Arg Gln Thr Gly Val Val Thr Pro
35 40 45
Tyr Ala Gly Ile Val Tyr Asp Leu Asn Asp Ile Trp Ser Val Tyr Thr
50 55 60
Ser Tyr Thr Lys Ile Tyr Lys Pro Gln Asn Ser Lys Asp Ala Asp Arg
65 70 75 80
Lys Leu Leu Asp Pro Ile Glu Gly Asp Thr Tyr Glu Ala Gly Leu Lys
85 90 95
Ala Ala Phe Phe Asp Gly Arg Leu Asn Ala Ser Phe Ala Ala Phe Arg
100 105 110
Ile Glu Gln Asp Asn Val Ala Gln Tyr Val Ser Gly Phe Glu Thr Asp
115 120 125
Ser Cys Ile Ala His Cys
130

<210> 1347

<211> 415

<212> DNA

<213> Homo sapiens

<400> 1347

naccaccttc tgggcaggct ctcattcttt cattccaaga agcatttatt aaagactggc
60
tagggcgagg gaaccagct aggggctggg gataaaaaat aagaaataac tgaaggacct
120
tgctcttaag gaactccatc ttactgggtg gagccaaacg agaaaagaga gctcgggagg
180
gcaccaaagc ggtcttgccg aaattgcctg aggcagggga aggggcacgc tttctgaaaa
240
acccccccaa accgattcca ggaagcccaa agggcgggccc ctctgcccgc agcactgcct
300
tcacgtttac ttccatcccg gcctctcct tcccctaagg cttggcatgc aacatccctg
360
cttctcacc accttttatt taagactcct attatctgca cacaatggaa gtttag
415

<210> 1348

<211> 105

<212> PRT

<213> Homo sapiens

<400> 1348

Met Glu Val Asn Val Lys Ala Val Leu Arg Ala Glu Gly Pro Pro Phe
 1 5 10 15
 Gly Leu Pro Gly Ile Gly Leu Gly Gly Phe Phe Arg Lys Arg Ala Pro
 20 25 30
 Ser Pro Ala Ser Gly Asn Phe Gly Lys Thr Ala Leu Val Pro Ser Arg
 35 40 45
 Ala Leu Phe Ser Arg Leu Ala Pro Pro Ser Lys Met Glu Phe Leu Lys
 50 55 60
 Ser Lys Val Leu Gln Leu Phe Leu Ile Phe Tyr Pro Gln Pro Leu Ala
 65 70 75 80
 Gly Phe Pro Arg Pro Ser Gln Ser Leu Ile Asn Ala Ser Trp Asn Glu
 85 90 95
 Arg Met Arg Ala Cys Pro Glu Gly Gly
 100 105

<210> 1349

<211> 924

<212> DNA

<213> Homo sapiens

<400> 1349

gccgggatcg tcacaccaca gcaggctcgcg ttaccccatg acgtcttccg tgagcttggc
 60
 gctcagacgg tcatgcgttc gatcgccgaa aagcttggcc ttccggtcat cgtaagccg
 120
 gcacgtgggg gctcaagcct cggcgtcaca aaagtcgatg gcgtcgacga tcttcctcag
 180
 gccgtcgcga acgcctatgc ctatgacgac atggtttag tagaggaatt cattgtgggc
 240
 aacgaactcg caataggcat gatcacgacg tctgaaggca cgcgtgtgct gccagccgct
 300
 gagattcgcc ctgtcgggtg tgtttatgat tattcagcga tgtacaccgg tggtagaca
 360
 cgactaacag ctctgcaga cattagcgat acggcgcccc aaaccgacgac ggcatggcc
 420
 cgagtcgtgc aaaaggagct cgatttctcc gggatatctc gtgtcgatgc gatcgtggac
 480
 gagtcgggtc gcccagtttt cttggaggcc ggtgctgctc ccgggatgac agctacttcg
 540
 ctctgacccg tggctatgaa agctgccggt ctagaccttg gcgaggtgtg ctctcgacta
 600
 gtcgatgacg tcgtcgcga ccatggctga cagtgtgcac acgaggggct cgcgccacgc
 660
 cgtgcgcgtc aagcaggcat ctgtcgtctt gctcggcgtc gtccttgcca gtgtgatggt
 720
 cttctcggga ctgtggcaga tgaacgtttt tgagtcccaa cgtgacgact cgacgcaggc
 780
 gcgtatcaac gagccagtga tcacctgga tgaggcgctt aagaaggcca gtgtcatggc
 840
 tcagtacgga cgccgggtga cggtagcggg cacgttccaa ccgtcgacca caaccttgat
 900
 aggcacatcg tggccagtac gcgt
 924

<210> 1350
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 1350
 Ala Gly Ile Val Thr Pro Gln Gln Val Ala Leu Pro His Asp Val Phe
 1 5 10 15
 Arg Glu Leu Gly Ala Gln Thr Val Met Arg Ser Ile Ala Glu Lys Leu
 20 25 30
 Gly Leu Pro Val Ile Val Lys Pro Ala Arg Gly Gly Ser Ser Leu Gly
 35 40 45
 Val Thr Lys Val Asp Gly Val Asp Asp Leu Pro Gln Ala Val Ala Asn
 50 55 60
 Ala Tyr Ala Tyr Asp Asp Met Val Val Val Glu Phe Ile Val Gly
 65 70 75 80
 Asn Glu Leu Ala Ile Gly Met Ile Thr Thr Ser Glu Gly Thr Arg Val
 85 90 95
 Leu Pro Ala Val Glu Ile Arg Pro Val Gly Gly Val Tyr Asp Tyr Ser
 100 105 110
 Ala Met Tyr Thr Gly Gly Glu Thr Arg Leu Thr Ala Pro Ala Asp Ile
 115 120 125
 Ser Asp Thr Ala Ala Gln Thr Ala Thr Ala Met Ala Arg Val Val Gln
 130 135 140
 Lys Glu Leu Asp Phe Ser Gly Ile Ser Arg Val Asp Ala Ile Val Asp
 145 150 155 160
 Glu Ser Gly Arg Pro Val Phe Leu Glu Ala Gly Ala Ala Pro Gly Met
 165 170 175
 Thr Ala Thr Ser Leu Val Pro Val Ala Met Lys Ala Ala Gly Leu Asp
 180 185 190
 Leu Gly Glu Val Cys Ser Arg Leu Val Asp Asp Val Ala Arg Asn His
 195 200 205
 Gly

<210> 1351
 <211> 398
 <212> DNA
 <213> Homo sapiens

<400> 1351
 nngtgcacgg agggcggtgct ggtctacgcc ctgtatctgc tgtctcgatg cacgatgggc
 60
 gacgagacgc aaaacgcatt gcttctcagt attctgctgc accccgggtct gctcatcgtc
 120
 gaccacattc acttcagta caacgggttc ctaattcgcg ggcccccttta tegtgtgggg
 180
 gcccgcacgg acgcatcggc cctctttctc tgaaccgccc tgtttgcttc gctgctccag
 240
 ttcaagcaca ttacgtata cgtcgcgccg gcgtactttg tgtacctgct gcgtgcgtac
 300
 atgctcccga gcatgccgac gtccgcatcg acggggagcg cggcgatcga tcgcaccatc
 360

aagcttggcg cagcgacgct ggtgccttcc tgctgagc
398

<210> 1352
<211> 70
<212> PRT
<213> Homo sapiens

<400> 1352
Xaa Cys Thr Glu Gly Val Leu Val Tyr Ala Leu Tyr Leu Leu Ser Arg
1 5 10 15
Cys Thr Met Gly Asp Glu Thr Gln Asn Ala Leu Leu Leu Ser Ile Leu
20 25 30
Leu His Pro Gly Leu Leu Ile Val Asp His Ile His Phe Gln Tyr Asn
35 40 45
Gly Phe Leu Ile Arg Gly Pro Leu Tyr Arg Leu Gly Ala Arg Thr Asp
50 55 60
Ala Ser Ala Leu Phe Leu
65 70

<210> 1353
<211> 480
<212> DNA
<213> Homo sapiens

<400> 1353
ngggcccaaa tccctagcct agggcctgga ggtcccctga gtttgctcag ccaactcatt
60
accctcacac ccacccacc cccagtcaca cggatcgtgc ggggcattgg acagcctcgg
120
ggcaacatgc tcttggtggg tatcgggggc agcggacgcc agagtctggc ccgcttggct
180
tcattccatct gcgactacac caccttccag atcgagggtca ccaaacatta tcggaagcag
240
gagttccgag atgatatcaa gcgtctgtat cgccaggctg ggggtggagct caagaccacg
300
tccttcattt ttgtggacac ccaaatagct gatgagtcct tcctagagga catcaacaac
360
atcctcagct caggcgaggt gcccacatctt ttcaggcctg atgaatttga agagatccag
420
tcgcatatca tagaccaggc ccgggtggag cagggtgcctg agtcacgga cagcctcttc
480

<210> 1354
<211> 160
<212> PRT
<213> Homo sapiens

<400> 1354
Xaa Ala Pro Ile Pro Ser Leu Gly Pro Gly Gly Pro Leu Ser Leu Leu
1 5 10 15
Ser Gln Leu Ile Thr Leu Thr Pro Thr Pro Pro Pro Val Thr Arg Ile
20 25 30
Val Arg Gly Ile Gly Gln Pro Arg Gly Asn Met Leu Leu Val Gly Ile


```
<210> 1355
<211> 1063
<212> DNA
<213> Homo sapiens
```

1154

aggggtgggccc gctgtttttgc caaccccaac ttccaaggca cccattgtga gctctgcgcg
 1020
 ccagggttct acggccccgg ctgccctggg tcccttcacg cgt
 1063

<210> 1356

<211> 244

<212> PRT

<213> Homo sapiens

<400> 1356

Ala	Pro	Ala	Thr	Cys	Leu	Gln	Asp	Gly	Pro	Asp	Pro	Pro	Ser	Cys	Val
1				5					10					15	
Pro	His	Arg	Leu	Gln	Cys	Thr	Cys	Gln	His	Asn	Thr	Cys	Gly	Gly	Thr
			20					25					30		
Cys	Asp	Arg	Cys	Cys	Pro	Gly	Phe	Asn	Gln	Gln	Pro	Trp	Lys	Pro	Ala
			35				40					45			
Thr	Ala	Asn	Ser	Ala	Asn	Glu	Cys	Gln	Ser	Cys	Asn	Cys	Tyr	Gly	His
	50					55					60				
Ala	Thr	Asp	Cys	Tyr	Tyr	Asp	Pro	Glu	Val	Asp	Arg	Arg	Arg	Ala	Ser
65					70					75					80
Gln	Ser	Leu	Asp	Gly	Thr	Tyr	Gln	Gly	Gly	Gly	Val	Cys	Ile	Asp	Cys
				85					90					95	
Gln	His	His	Thr	Ala	Gly	Val	Asn	Cys	Glu	Arg	Cys	Leu	Pro	Gly	Phe
			100					105						110	
Tyr	Arg	Ser	Pro	Asn	His	Pro	Leu	Asp	Ser	Pro	His	Val	Cys	Arg	Arg
			115				120					125			
Cys	Asn	Cys	Glu	Ser	Asp	Phe	Thr	Asp	Gly	Thr	Cys	Glu	Asp	Leu	Thr
	130					135						140			
Gly	Arg	Cys	Tyr	Cys	Arg	Pro	Asn	Phe	Ser	Gly	Glu	Arg	Cys	Asp	Val
145					150					155					160
Cys	Ala	Glu	Gly	Phe	Thr	Gly	Phe	Pro	Ser	Cys	Tyr	Pro	Thr	Pro	Ser
				165					170					175	
Ser	Ser	Asn	Asp	Thr	Arg	Glu	Gln	Val	Leu	Pro	Ala	Gly	Gln	Ile	Val
			180					185					190		
Asn	Cys	Asp	Cys	Ser	Ala	Ala	Gly	Thr	Gln	Gly	Asn	Ala	Cys	Arg	Lys
		195					200					205			
Asp	Pro	Arg	Val	Gly	Arg	Cys	Phe	Ala	Asn	Pro	Asn	Phe	Gln	Gly	Thr
	210					215						220			
His	Cys	Glu	Leu	Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Pro	Gly	Cys	Pro	Gly
225					230					235					240
Ser	Leu	His	Ala												

<210> 1357

<211> 663

<212> DNA

<213> Homo sapiens

<400> 1357

ntcccccccc ccccgggggg gggggggggg ggaaacaaca ccagaaaagt agacagatac
 60
 ccaagttggt ccagctggtc catatacggc ccaggtgag gattcggtag cgaagttgaa
 120

ttcaacaccc ccgttttgcc tgtggggggg gtacgccctg taatcctgca aaggcccggg
 180
 tgggtgtccg gggttttcgt cgggtctccc aaccatcatc tagacggcgt ggcgatgtgg
 240
 tgcgagctgc ttgcggcggg gttctgtgcc cgagcttgcc tcgcctggct gcaagaatcc
 300
 ctggctcatc gagcttcagc gtcagtcaag tcgcaattgc ggcgcgacat cctgcaagcc
 360
 aggttgctgc gtcccactga cgcaacaatg ccgtcgagaa ccctcatcag cctgatgaca
 420
 acaggtctgg acgcccctga cggctactac tcgaagtacc ttcccagct tgtgctggcc
 480
 gtcacgtgct cagcagtgtg agccaccgct atcggcctaa acgacctcac cagcctcgtc
 540
 atcgtcgtcg tgacgatccc gtcacatccc gttttcatgg ccctcattgg ctggcggacc
 600
 gaggcggccg tagcaaaacg gttcaaggta gccacccgac tggccaacca cttcgtgat
 660
 ctg
 663

<210> 1358

<211> 221

<212> PRT

<213> Homo sapiens

<400> 1358

Xaa	Pro	Pro	Pro	Pro	Gly	Gly	Gly	Gly	Gly	Gly	Asn	Asn	Thr	Arg	Lys
1				5					10					15	
Val	Asp	Arg	Tyr	Pro	Ser	Trp	Ser	Ser	Trp	Ser	Ile	Tyr	Gly	Pro	Arg
			20					25					30		
Cys	Gly	Phe	Gly	Thr	Glu	Val	Glu	Phe	Asn	Thr	Pro	Val	Leu	Pro	Val
		35					40					45			
Gly	Gly	Val	Arg	Pro	Val	Ile	Leu	Gln	Arg	Pro	Gly	Trp	Cys	Pro	Gly
		50				55				60					
Val	Phe	Val	Gly	Leu	Pro	Asn	His	His	Leu	Asp	Gly	Val	Ala	Met	Trp
65				70					75					80	
Cys	Glu	Leu	Leu	Ala	Ala	Val	Phe	Cys	Ala	Arg	Ala	Cys	Leu	Ala	Trp
			85					90					95		
Leu	Gln	Glu	Ser	Leu	Ala	His	Arg	Ala	Ser	Ala	Ser	Val	Lys	Ser	Gln
			100					105					110		
Leu	Arg	Arg	Asp	Ile	Leu	Gln	Ala	Arg	Leu	Ser	Arg	Pro	Thr	Asp	Ala
		115				120						125			
Thr	Met	Pro	Ser	Arg	Thr	Leu	Ile	Ser	Leu	Met	Thr	Thr	Gly	Leu	Asp
		130				135					140				
Ala	Leu	Asp	Gly	Tyr	Tyr	Ser	Lys	Tyr	Leu	Pro	Gln	Leu	Val	Leu	Ala
145				150					155					160	
Val	Ile	Val	Pro	Ala	Val	Leu	Ala	Thr	Ala	Ile	Gly	Leu	Asn	Asp	Leu
			165					170					175		
Thr	Ser	Leu	Val	Ile	Val	Val	Val	Thr	Ile	Pro	Leu	Ile	Pro	Val	Phe
		180						185				190			
Met	Ala	Leu	Ile	Gly	Trp	Arg	Thr	Glu	Ala	Ala	Val	Ala	Lys	Arg	Phe
		195				200					205				
Lys	Val	Ala	Thr	Arg	Leu	Ala	Asn	His	Phe	Ala	Asp	Leu			

210

215

220

<210> 1359
 <211> 423
 <212> DNA
 <213> Homo sapiens

<400> 1359
 acgcgtattc ctctgttttg acctgcgctc ttacatctgt actaagacct tgtttttgca
 60
 tgataaagtt ccaagactcc aaaatgtcac atggtgtacg agaaacaaaa ggttgtttgt
 120
 ctatttgctt aatagataga gaggtgtagt cagctagcca atagccgact ggcacgcca
 180
 cgacgtaatc gtcttcccat aaagggtaaa atacatcatc ttctttggtg taactgtcgc
 240
 aagtaaagcg taaatcagcg ctttctgagg catcgactaa actgagtgtg agtcctggaa
 300
 tatcgtcgag catggttttg atcacttgac taatcagggt gccagataga aaagggtgta
 360
 atgaaataga cagcgccagg tttgcgcgtt ttacgaaac atatccttaa tatcggttaag
 420
 ctt
 423

<210> 1360
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 1360
 Met Leu Asp Asp Ile Pro Gly Leu Thr Leu Ser Leu Val Asp Ala Ser
 1 5 10 15
 Glu Ser Ala Asp Leu Arg Phe Thr Cys Asp Ser Tyr Thr Lys Glu Asp
 20 25 30
 Asp Val Phe Tyr Pro Leu Trp Glu Asp Asp Tyr Val Val Ala Met Pro
 35 40 45
 Val Gly Tyr Trp Leu Ala Asp Tyr Thr Ser Leu Ser Ile Lys Gln Ile
 50 55 60
 Asp Lys Gln Pro Phe Val Ser Arg Thr Pro Cys Asp Ile Leu Glu Ser
 65 70 75 80
 Trp Asn Phe Ile Met Gln Lys Gln Gly Leu Ser Thr Asp Val Arg Ala
 85 90 95
 Gln Val Lys Thr Glu Glu Tyr Ala
 100

<210> 1361
 <211> 5300
 <212> DNA
 <213> Homo sapiens

<400> 1361
 nccccgcag gggaaggcgg gtcctggcgg ccagcgcgcg gtccgcgccc accctagccg
 60

acggggccgg cagagcgcg cggcgctcggg cccttgacca tggcgggcggc tgcgcttctg
120
ctggggctgg cgctgctggc accgcggggc gccggcgcg gcctggggc gtgctatgac
180
ggcgagggc gcccgcagcg ctgcctgccg gtgttcgaga acgcggcggt tgggcggctc
240
gcccaggcct cgacacgtg cggcagccc cccaggact tctgtcccca cgtgggcgc
300
gcggcgcggg gggctcattg ccagcgctgc gacgccgcg acccccagcg ccaccacaac
360
gcctcctacc tcaccgactt ccacagccag gacgagagca cctgggtggca gagcccgctc
420
atggccttcg gcgtgcagta cccacctcg gtcaacatca ccctccgcct aggggaaggct
480
tatgagatca cgtatgtgag gctgaagttc cacaccagtc gccctgagag ctttgccatc
540
tacaagcgca gccgcgccga cggcccatgg gagccctacc agttctacag cgcctcctgc
600
cagaagacct acggccggcc cgagggccag tacctgcgcc ccggcgagga cgagcgctg
660
gccttctgca cctctgagtt cagcgacatc tccccgctga gtggcgcaa cgtggccttc
720
tccacctgg agggccggcc cagcgccctac aacttcgagg agagccctgg gctgcaggag
780
tgggtcacca gcaccgaact cctcatctct ctagaccggc tcaacacgtt tggggacgac
840
atcttcaagg accccaagg gctccagtcc tactattatg ccgtgtccga cttctctgtg
900
ggcgccaggt gcaagtgcaa cgggcatgcc agcgagtgcg gcccgcagct ggcaggccag
960
ttggcctgcc ggtgccagca caacaccacc ggcacagact gtgagcgctg cctgcccttc
1020
ttccaggacc gcccgtaggg ccggggcacc gccgaggctg cccacgagtg tctgccctgc
1080
aactgcagtg gccgctccga ggaatgcacg tttgatcggg agctcttccg cagcacaggc
1140
cacggcgggc gctgtcacca ctgccgtgac cacacagctg ggccacactg tgagcgctgt
1200
caggagaatt tctatcactg ggaccgcgg atgccatgcc agccctgtga ctgccagtgc
1260
gcaggctccc tacacctcca gtgcgatgac acaggcacct gcgcctgcaa gccacagtg
1320
actggctgga agtgtgaccg ctgtctgccc gggttccact cgctcagtga gggaggctgc
1380
agacctgca cttgcaatcc cgctggcagc ctggacacct gtgacccccg cagtgggcgc
1440
tgcccctgca aagagaatgt ggaaggcaac ctatgtgaca gatgtcgccc ggggaccttt
1500
aacctgcagc cccacaatcc agctggctgc agcagctgtt tctgctatgg cactccaag
1560
gtgtgcgct cactgcccc gttccagggt catcacatcc tcagcgattt ccaccaggga
1620
gccgaaggct ggtgggcccag aagtgtgggg ggctctgagc actccccaca atggagccca
1680

aatggggtcc tcctgagccc agaagacgag gaggagctca cagcaccagg gaagttcctg
1740
ggagaccagc ggttcagcta tgggcagccc ctcatactga ccttcgaggc gcccccgagg
1800
gactccccac tcctgtaca gctgaggctg gaagggacag gcttggccct gtccctgagg
1860
cactctagcc tgtctggccc ccaggatgcc agggcatccc agggaggtag agctcaggtt
1920
ccactgcagg agacctccga ggacgtggcc cctccactgc ccccttcca cttccagcgg
1980
ctctcgcca acctgaccag cctccgcctc cgcgtcagtc ccggccccag ccctgcccgg
2040
ccagtgttcc tgactgaggt ccggctcaca tccgcccggc cagggttttc cccgccagcc
2100
tcctgggtgg agatttgctt atgtcccact ggctacacgg gccagttctg tgaatcctgt
2160
gtccgggat acaagaggga gatgccacag gggggtccct atgccagctg tgtcccctgc
2220
acctgtaacc agcatggcac ctgtgacccc aacacaggga tctgtgtctg cagccaccat
2280
accgagggcc catcctgtga acgctgtttg ccaggtttct atggcaaccc ttctcggggc
2340
caagccgacg actgccagcc ctgtccctgc cctggccagt cggcctgtac gaccatccca
2400
gagagcgggg aggtggtgtg taccactgc cccccgggag agagagggcg gcgctgtgag
2460
gtctgtgatg atggcttttt tggggacccg ctggggctct ttgggcaccc ccagccctgc
2520
caccagtgcc agtgtagcgg gaacgtggac cccaatgccg tgggcaactg tgacccctg
2580
tctggccact gcctgcgctg cctgcacaac accacgggtg accactgtga gactgtcag
2640
gaaggcttct acgggagcgc cctggccctc cgacccgcag acaaatgcat gccttgacg
2700
tgtcacccac agggctcggc cagtgcagc atgccctgcg acccagtgc aggccaatgc
2760
tcctgcctgc ctcatgtgac tgcacgggac tgcagccgct gctaccctgg cttcttcgac
2820
ctccagcctg ggaggggctg ccggagctgc aagtgtcacc cactgggctc ccaggaggac
2880
cagtgccatc ccaagactgg acagtgcacc tgccgccag gtgtcacagg ccaggcctgt
2940
gacaggtgcc agctgggttt ctteggctcc tcaatcaagg gctgccgggc ctgcaggtgc
3000
tccccactgg gcgctgcctc ggcccagtgc cactataacg gcacatgctg gtgcaggcct
3060
ggcttcgagg gctacaaatg tgaccgctgc cactacaact tcttcctcac ggagacggc
3120
acacactgcc agcaatgtcc gtctgtctac gccctggtga aggaggagac agccaagctg
3180
aaggccagac tgactttgac ggaggggtgg ctccaagggt ccgactgtgg cagtccctgg
3240
ggaccactag acattctgct gggagaggcc ccaagggggg acgtctacca gggccatcac
3300

ctgcttccag gggctcggga agccttcctg gagcagatga tgggcctcga gggtgctgtc
3360
aaggccgccc gggagcagct gcagaggctg aacaagggtg cccgctgtgc ccaggccgga
3420
tcccagaaga cctgcaccca gctggcagac ctggaggcag tgctggagtc ctcggaagag
3480
gagattctgc atgcagctgc cattctcgcg tctctggaga ttcttcagga aggtcccagt
3540
cagccgacca aatggagcca cctggccata gaggcccggtg ccctcgccag gagccacaga
3600
gacaccgcca ccaagatcgc agccactgct tggagggccc tgctcgctc caacaccagc
3660
tacgcgttc tctggaatct gctggagggg aggggtggccc tagagacca gcgggacctg
3720
gaggacaggt accaggaggt ccaggcggcc cagaaagcac tgaggacggc tgtggcagag
3780
gtgctgcctg aagcggaaag cgtgttgcc accgtgcggc aagttggcg agatacagcc
3840
ccgtacctgg ccttgctggc tccccggga gctctgcctc agaagtcccg ggctgaagac
3900
ctgggctga aggcgaaggc cctggagaag acagttgcat catggcagca catggccact
3960
gaggctgccc gaaccctcca gactgctgcc caggcgacgc tacggcaaac agaaccctc
4020
acaatggcgc gatctcggct cactgcaacc tttgcctccc agctgcacca ggaggccaga
4080
gccgccctga cccaggttc ctcactctgtc caggctgcga cagtactgt catgggagcc
4140
aggactctgc tggctgatct ggaaggaatg aagctgcagt tccccggcc caaggaccag
4200
gcggcattgc agaggaaggc agactccgtc agtgacagac tccttgaga cacgagaaag
4260
aagaccaagc aggcggagag gatgctggga aacgcggccc ctctttcctc cagtgccaa
4320
aagaagggca gagaagcaga ggtgttgcc aaggacagt ccaagcttgc caaggccttg
4380
ctgagggagc ggaaacaggc gcaccgctgt gccagcaggc tcaccagcca gacgcaagcc
4440
acgctccaac aggcgtccca gcaggtgctg gcgtctgaag cacgcagaca ggagctggag
4500
gaagctgagc ggggtgggtg tgggctgagc gagatggagc agcagatccg ggaatcgctg
4560
atctcactgg agaaggacat cgagacctg tcagagctgc ttgccaggct ggggtcgctg
4620
gacacccatc aagccccagc ccaggccctg aacgagactc agtgggcact agaacgcctg
4680
aggctgcagc tgggctcccc ggggtccttg cagaggaaac tcagtctgct ggagcaggaa
4740
tcccagcagc aggagctgca gatccagggc ttcgagagt acctcgccga gatccgcgc
4800
gacaaacaga acctggaggc cattctgcac agcctgccc agaaactgtgc cagctggcag
4860
tgagggctgc ccagatcccc ggcacacact cccccacctg ctgtttacat gaccagggg
4920

gtgcacacta cccacaggt gtgccatac agacattccc cggagccggc tgctgtgaac
 4980
 tgcaccccggt gtggatagtc aactccctg cggattctgt ctgtggcttc ttccctgcca
 5040
 gcaggactga gtgtgcttac ccagttcacc tggacatgag tgcacactct caccctgca
 5100
 catgcataaa cgggcacacc ccagtgtaa taacatacac acgtgagggt gcatgtctgt
 5160
 gtgtatgacc cacacgtgtt caagtctaata ccatccagtc agcagcttac ggtccacaca
 5220
 cattacagtc cacagctgtt gtgagagcac ctgtgtgctg gacaccctct ggatgttggg
 5280
 caagttgtac atgagatgcc
 5300

<210> 1362

<211> 1587

<212> PRT

<213> Homo sapiens

<400> 1362

Met	Ala	Ala	Ala	Ala	Leu	Leu	Leu	Gly	Leu	Ala	Leu	Leu	Ala	Pro	Arg
1				5					10					15	
Ala	Ala	Gly	Ala	Gly	Met	Gly	Ala	Cys	Tyr	Asp	Gly	Ala	Gly	Arg	Pro
			20					25					30		
Gln	Arg	Cys	Leu	Pro	Val	Phe	Glu	Asn	Ala	Ala	Phe	Gly	Arg	Leu	Ala
		35					40					45			
Gln	Ala	Ser	His	Thr	Cys	Gly	Ser	Pro	Pro	Glu	Asp	Phe	Cys	Pro	His
	50					55					60				
Val	Gly	Ala	Ala	Gly	Ala	Gly	Ala	His	Cys	Gln	Arg	Cys	Asp	Ala	Ala
65					70					75				80	
Asp	Pro	Gln	Arg	His	His	Asn	Ala	Ser	Tyr	Leu	Thr	Asp	Phe	His	Ser
			85						90					95	
Gln	Asp	Glu	Ser	Thr	Trp	Trp	Gln	Ser	Pro	Ser	Met	Ala	Phe	Gly	Val
		100						105					110		
Gln	Tyr	Pro	Thr	Ser	Val	Asn	Ile	Thr	Leu	Arg	Leu	Gly	Lys	Ala	Tyr
	115					120						125			
Glu	Ile	Thr	Tyr	Val	Arg	Leu	Lys	Phe	His	Thr	Ser	Arg	Pro	Glu	Ser
	130					135					140				
Phe	Ala	Ile	Tyr	Lys	Arg	Ser	Arg	Ala	Asp	Gly	Pro	Trp	Glu	Pro	Tyr
145					150					155				160	
Gln	Phe	Tyr	Ser	Ala	Ser	Cys	Gln	Lys	Thr	Tyr	Gly	Arg	Pro	Glu	Gly
			165						170					175	
Gln	Tyr	Leu	Arg	Pro	Gly	Glu	Asp	Glu	Arg	Val	Ala	Phe	Cys	Thr	Ser
		180					185						190		
Glu	Phe	Ser	Asp	Ile	Ser	Pro	Leu	Ser	Gly	Gly	Asn	Val	Ala	Phe	Ser
	195						200					205			
Thr	Leu	Glu	Gly	Arg	Pro	Ser	Ala	Tyr	Asn	Phe	Glu	Glu	Ser	Pro	Gly
	210					215					220				
Leu	Gln	Glu	Trp	Val	Thr	Ser	Thr	Glu	Leu	Leu	Ile	Ser	Leu	Asp	Arg
225					230						235			240	
Leu	Asn	Thr	Phe	Gly	Asp	Asp	Ile	Phe	Lys	Asp	Pro	Lys	Val	Leu	Gln
			245						250					255	
Ser	Tyr	Tyr	Tyr	Ala	Val	Ser	Asp	Phe	Ser	Val	Gly	Gly	Arg	Cys	Lys

260 265 270
 Cys Asn Gly His Ala Ser Glu Cys Gly Pro Asp Val Ala Gly Gln Leu
 275 280 285
 Ala Cys Arg Cys Gln His Asn Thr Thr Gly Thr Asp Cys Glu Arg Cys
 290 295 300
 Leu Pro Phe Phe Gln Asp Arg Pro Trp Ala Arg Gly Thr Ala Glu Ala
 305 310 315 320
 Ala His Glu Cys Leu Pro Cys Asn Cys Ser Gly Arg Ser Glu Glu Cys
 325 330 335
 Thr Phe Asp Arg Glu Leu Phe Arg Ser Thr Gly His Gly Gly Arg Cys
 340 345 350
 His His Cys Arg Asp His Thr Ala Gly Pro His Cys Glu Arg Cys Gln
 355 360 365
 Glu Asn Phe Tyr His Trp Asp Pro Arg Met Pro Cys Gln Pro Cys Asp
 370 375 380
 Cys Gln Ser Ala Gly Ser Leu His Leu Gln Cys Asp Asp Thr Gly Thr
 385 390 395 400
 Cys Ala Cys Lys Pro Thr Val Thr Gly Trp Lys Cys Asp Arg Cys Leu
 405 410 415
 Pro Gly Phe His Ser Leu Ser Glu Gly Gly Cys Arg Pro Cys Thr Cys
 420 425 430
 Asn Pro Ala Gly Ser Leu Asp Thr Cys Asp Pro Arg Ser Gly Arg Cys
 435 440 445
 Pro Cys Lys Glu Asn Val Glu Gly Asn Leu Cys Asp Arg Cys Arg Pro
 450 455 460
 Gly Thr Phe Asn Leu Gln Pro His Asn Pro Ala Gly Cys Ser Ser Cys
 465 470 475 480
 Phe Cys Tyr Gly His Ser Lys Val Cys Ala Ser Thr Ala Gln Phe Gln
 485 490 495
 Val His His Ile Leu Ser Asp Phe His Gln Gly Ala Glu Gly Trp Trp
 500 505 510
 Ala Arg Ser Val Gly Gly Ser Glu His Ser Pro Gln Trp Ser Pro Asn
 515 520 525
 Gly Val Leu Leu Ser Pro Glu Asp Glu Glu Glu Leu Thr Ala Pro Gly
 530 535 540
 Lys Phe Leu Gly Asp Gln Arg Phe Ser Tyr Gly Gln Pro Leu Ile Leu
 545 550 555 560
 Thr Phe Arg Val Pro Pro Gly Asp Ser Pro Leu Pro Val Gln Leu Arg
 565 570 575
 Leu Glu Gly Thr Gly Leu Ala Leu Ser Leu Arg His Ser Ser Leu Ser
 580 585 590
 Gly Pro Gln Asp Ala Arg Ala Ser Gln Gly Gly Arg Ala Gln Val Pro
 595 600 605
 Leu Gln Glu Thr Ser Glu Asp Val Ala Pro Pro Leu Pro Pro Phe His
 610 615 620
 Phe Gln Arg Leu Leu Ala Asn Leu Thr Ser Leu Arg Leu Arg Val Ser
 625 630 635 640
 Pro Gly Pro Ser Pro Ala Gly Pro Val Phe Leu Thr Glu Val Arg Leu
 645 650 655
 Thr Ser Ala Arg Pro Gly Leu Ser Pro Pro Ala Ser Trp Val Glu Ile
 660 665 670
 Cys Ser Cys Pro Thr Gly Tyr Thr Gly Gln Phe Cys Glu Ser Cys Ala
 675 680 685
 Pro Gly Tyr Lys Arg Glu Met Pro Gln Gly Gly Pro Tyr Ala Ser Cys

690	695	700
Val Pro Cys Thr Cys Asn Gln His Gly Thr Cys Asp Pro Asn Thr Gly		
705	710	715
Ile Cys Val Cys Ser His His Thr Glu Gly Pro Ser Cys Glu Arg Cys		
	725	730
Leu Pro Gly Phe Tyr Gly Asn Pro Phe Ala Gly Gln Ala Asp Asp Cys		
	740	745
Gln Pro Cys Pro Cys Pro Gly Gln Ser Ala Cys Thr Thr Ile Pro Glu		
	755	760
Ser Gly Glu Val Val Cys Thr His Cys Pro Pro Gly Gln Arg Gly Arg		
	770	775
Arg Cys Glu Val Cys Asp Asp Gly Phe Phe Gly Asp Pro Leu Gly Leu		
785	790	795
Phe Gly His Pro Gln Pro Cys His Gln Cys Gln Cys Ser Gly Asn Val		
	805	810
Asp Pro Asn Ala Val Gly Asn Cys Asp Pro Leu Ser Gly His Cys Leu		
	820	825
Arg Cys Leu His Asn Thr Thr Gly Asp His Cys Glu His Cys Gln Glu		
	835	840
Gly Phe Tyr Gly Ser Ala Leu Ala Pro Arg Pro Ala Asp Lys Cys Met		
	850	855
Pro Cys Ser Cys His Pro Gln Gly Ser Val Ser Glu Gln Met Pro Cys		
865	870	875
Asp Pro Val Thr Gly Gln Cys Ser Cys Leu Pro His Val Thr Ala Arg		
	885	890
Asp Cys Ser Arg Cys Tyr Pro Gly Phe Phe Asp Leu Gln Pro Gly Arg		
	900	905
Gly Cys Arg Ser Cys Lys Cys His Pro Leu Gly Ser Gln Glu Asp Gln		
	915	920
Cys His Pro Lys Thr Gly Gln Cys Thr Cys Arg Pro Gly Val Thr Gly		
	930	935
Gln Ala Cys Asp Arg Cys Gln Leu Gly Phe Phe Gly Ser Ser Ile Lys		
945	950	955
Gly Cys Arg Ala Cys Arg Cys Ser Pro Leu Gly Ala Ala Ser Ala Gln		
	965	970
Cys His Tyr Asn Gly Thr Cys Val Cys Arg Pro Gly Phe Glu Gly Tyr		
	980	985
Lys Cys Asp Arg Cys His Tyr Asn Phe Phe Leu Thr Ala Asp Gly Thr		
	995	1000
His Cys Gln Gln Cys Pro Ser Cys Tyr Ala Leu Val Lys Glu Glu Thr		
	1010	1015
Ala Lys Leu Lys Ala Arg Leu Thr Leu Thr Glu Gly Trp Leu Gln Gly		
1025	1030	1035
Ser Asp Cys Gly Ser Pro Trp Gly Pro Leu Asp Ile Leu Leu Gly Glu		
	1045	1050
Ala Pro Arg Gly Asp Val Tyr Gln Gly His His Leu Leu Pro Gly Ala		
	1060	1065
Arg Glu Ala Phe Leu Glu Gln Met Met Gly Leu Glu Gly Ala Val Lys		
	1075	1080
Ala Ala Arg Glu Gln Leu Gln Arg Leu Asn Lys Gly Ala Arg Cys Ala		
	1090	1095
Gln Ala Gly Ser Gln Lys Thr Cys Thr Gln Leu Ala Asp Leu Glu Ala		
1105	1110	1115
Val Leu Glu Ser Ser Glu Glu Glu Ile Leu His Ala Ala Ala Ile Leu		

1125 1130 1135
 Ala Ser Leu Glu Ile Pro Gln Glu Gly Pro Ser Gln Pro Thr Lys Trp
 1140 1145 1150
 Ser His Leu Ala Ile Glu Ala Arg Ala Leu Ala Arg Ser His Arg Asp
 1155 1160 1165
 Thr Ala Thr Lys Ile Ala Ala Thr Ala Trp Arg Ala Leu Leu Ala Ser
 1170 1175 1180
 Asn Thr Ser Tyr Ala Leu Leu Trp Asn Leu Leu Glu Gly Arg Val Ala
 1185 1190 1195 1200
 Leu Glu Thr Gln Arg Asp Leu Glu Asp Arg Tyr Gln Glu Val Gln Ala
 1205 1210 1215
 Ala Gln Lys Ala Leu Arg Thr Ala Val Ala Glu Val Leu Pro Glu Ala
 1220 1225 1230
 Glu Ser Val Leu Ala Thr Val Arg Gln Val Gly Ala Asp Thr Ala Pro
 1235 1240 1245
 Tyr Leu Ala Leu Leu Ala Ser Pro Gly Ala Leu Pro Gln Lys Ser Arg
 1250 1255 1260
 Ala Glu Asp Leu Gly Leu Lys Ala Lys Ala Leu Glu Lys Thr Val Ala
 1265 1270 1275 1280
 Ser Trp Gln His Met Ala Thr Glu Ala Ala Arg Thr Leu Gln Thr Ala
 1285 1290 1295
 Ala Gln Ala Thr Leu Arg Gln Thr Glu Pro Leu Thr Met Ala Arg Ser
 1300 1305 1310
 Arg Leu Thr Ala Thr Phe Ala Ser Gln Leu His Gln Glu Ala Arg Ala
 1315 1320 1325
 Ala Leu Thr Gln Ala Ser Ser Ser Val Gln Ala Ala Thr Val Thr Val
 1330 1335 1340
 Met Gly Ala Arg Thr Leu Leu Ala Asp Leu Glu Gly Met Lys Leu Gln
 1345 1350 1355 1360
 Phe Pro Arg Pro Lys Asp Gln Ala Ala Leu Gln Arg Lys Ala Asp Ser
 1365 1370 1375
 Val Ser Asp Arg Leu Leu Ala Asp Thr Arg Lys Lys Thr Lys Gln Ala
 1380 1385 1390
 Glu Arg Met Leu Gly Asn Ala Ala Pro Leu Ser Ser Ser Ala Lys Lys
 1395 1400 1405
 Lys Gly Arg Glu Ala Glu Val Leu Ala Lys Asp Ser Ala Lys Leu Ala
 1410 1415 1420
 Lys Ala Leu Leu Arg Glu Arg Lys Gln Ala His Arg Arg Ala Ser Arg
 1425 1430 1435 1440
 Leu Thr Ser Gln Thr Gln Ala Thr Leu Gln Gln Ala Ser Gln Gln Val
 1445 1450 1455
 Leu Ala Ser Glu Ala Arg Arg Gln Glu Leu Glu Glu Ala Glu Arg Val
 1460 1465 1470
 Gly Ala Gly Leu Ser Glu Met Glu Gln Gln Ile Arg Glu Ser Arg Ile
 1475 1480 1485
 Ser Leu Glu Lys Asp Ile Glu Thr Leu Ser Glu Leu Leu Ala Arg Leu
 1490 1495 1500
 Gly Ser Leu Asp Thr His Gln Ala Pro Ala Gln Ala Leu Asn Glu Thr
 1505 1510 1515 1520
 Gln Trp Ala Leu Glu Arg Leu Arg Leu Gln Leu Gly Ser Pro Gly Ser
 1525 1530 1535
 Leu Gln Arg Lys Leu Ser Leu Leu Glu Gln Glu Ser Gln Gln Gln Glu
 1540 1545 1550
 Leu Gln Ile Gln Gly Phe Glu Ser Asp Leu Ala Glu Ile Arg Ala Asp

1555 1560 1565
 Lys Gln Asn Leu Glu Ala Ile Leu His Ser Leu Pro Glu Asn Cys Ala
 1570 1575 1580
 Ser Trp Gln
 1585

<210> 1363
 <211> 392
 <212> DNA
 <213> Homo sapiens

<400> 1363
 tcatgactgt ggccatgctc tgcgtcgtgc gtcgtcaggg atacaggcgc cattgaagac
 60
 gaaggcgcca ccgaagacaa ggacgtagag gaaagccgcg ctgtgctcga aggcgcagca
 120
 ggaatctgcg aaaccgacaa agatgcggct gtttgagtgg atgtgaagga agatgcaggt
 180
 gtctcatcgg cggggccacc atgaacaacc cttcttgatg ccccgtaggt gacgcgctca
 240
 cacacgacat gcacaacaaa taaatcgcaa agcacagagg gacaatcgaa tacaccttga
 300
 cccatgcact tgcgtgcctg gaggcattggc taccaggcaa tcccctcatt tccagaatga
 360
 gcctgttttt gaaagcgact aggggaagttc ag
 392

<210> 1364
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 1364
 Met Arg Gly Leu Pro Gly Ser His Ala Ser Arg His Ala Ser Ala Trp
 1 5 10 15
 Val Lys Val Tyr Ser Ile Val Pro Leu Cys Phe Ala Ile Tyr Leu Leu
 20 25 30
 Cys Met Ser Cys Val Ser Ala Ser Pro Thr Gly His Gln Glu Gly Leu
 35 40 45
 Phe Met Val Ala Pro Pro Met Arg His Leu His Leu Pro Ser His Pro
 50 55 60
 Leu Lys Gln Pro His Leu Cys Arg Phe Arg Arg Phe Leu Leu Arg Leu
 65 70 75 80
 Arg Ala Gln Arg Gly Phe Pro Leu Arg Pro Cys Leu Arg Trp Arg Leu
 85 90 95
 Arg Leu Gln Trp Arg Leu Tyr Pro
 100

<210> 1365
 <211> 451
 <212> DNA
 <213> Homo sapiens

<400> 1365

nnacgcgtga gggagaagat ggatgacacc agcctctata atacgccctg tgtcctggac
 60
 ctacagcggg ccctgggtca ggatcgccaa gaggcgccct ggaatgaggt ggatgaggtc
 120
 tggcccaatg tcttcatagc tgagaagagt gtggctgtga acaaggggag gctgaagagg
 180
 ctgggaatca cccacattct gaatgctgcg catggcaccg gcgtttacac tggccccgaa
 240
 ttctacactg gcctggagat ccagtacctg ggtgtagagg tggatgactt tctgaggtg
 300
 gacatttccc agcatttccg gaaggcgtct gagttcctgg atgaggcgct gctgacttac
 360
 agagggaaaag tcttggtcag cagcgaaatg ggcacagcc ggtcagcagt gctggtggtc
 420
 gcctacctga tgatcttcca caacatggcc a
 451

<210> 1366
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 1366
 Xaa Arg Val Arg Glu Lys Met Asp Asp Thr Ser Leu Tyr Asn Thr Pro
 1 5 10 15
 Cys Val Leu Asp Leu Gln Arg Ala Leu Val Gln Asp Arg Gln Glu Ala
 20 25 30
 Pro Trp Asn Glu Val Asp Glu Val Trp Pro Asn Val Phe Ile Ala Glu
 35 40 45
 Lys Ser Val Ala Val Asn Lys Gly Arg Leu Lys Arg Leu Gly Ile Thr
 50 55 60
 His Ile Leu Asn Ala Ala His Gly Thr Gly Val Tyr Thr Gly Pro Glu
 65 70 75 80
 Phe Tyr Thr Gly Leu Glu Ile Gln Tyr Leu Gly Val Glu Val Asp Asp
 85 90 95
 Phe Pro Glu Val Asp Ile Ser Gln His Phe Arg Lys Ala Ser Glu Phe
 100 105 110
 Leu Asp Glu Ala Leu Leu Thr Tyr Arg Gly Lys Val Leu Val Ser Ser
 115 120 125
 Glu Met Gly Ile Ser Arg Ser Ala Val Leu Val Val Ala Tyr Leu Met
 130 135 140
 Ile Phe His Asn Met Ala
 145 150

<210> 1367
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 1367
 gtgcacgcgc cccggacaaa aaaatgagca gcaccccaga cgtcacgcgt acacccatgg
 60
 cgccgatacg cgccaacgcc gtagaccgcg aacgctggct caccggcgcc gctgtactgc
 120

tctgctgcgc attgctgctg gtcacgctcg cactgcccgt cagcgcactc gtcggccaga
 180
 gcttcttcga ccgcgaaggc gccttcgctg gcctcgccaa ctctgctcgc tacctcgaca
 240
 accccgccct ggtccagtc gccttcaaca gcctctggct ggccgcgac agcgccgtca
 300
 tctgcaccgc catcgctac gtctacgct
 330

<210> 1368

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1368

Thr	Ala	Asn	Ala	Gly	Ser	Pro	Ala	Pro	Leu	Tyr	Cys	Ser	Ser	Ser	His
1				5				10						15	
Cys	Cys	Trp	Ser	Ser	Ser	His	Cys	Pro	Ser	Ala	His	Ser	Ser	Ala	Arg
			20					25					30		
Ala	Ser	Ser	Thr	Ala	Lys	Ala	Pro	Ser	Ser	Ala	Ser	Pro	Thr	Ser	Leu
			35				40					45			
Ala	Thr	Ser	Thr	Thr	Pro	Pro	Trp	Ser	Ser	Pro	Pro	Ser	Thr	Ala	Ser
	50					55				60					
Gly	Trp	Pro	Arg	Ser	Ala	Pro	Ser	Ser	Ala	Pro	Pro	Ser	Pro	Thr	Ser
65					70					75				80	
Thr	Arg														

<210> 1369

<211> 356

<212> DNA

<213> Homo sapiens

<400> 1369

cgccagttca tctataagaa catcatccac agtgcagcac caatgggcga cgagatggct
 60
 catcacctgt acgtactgca ggctctcatg ctggggctgc tggagccgcg catgcggacg
 120
 cccctggacc cctacagcca ggagcagcgg gagcagctgc aggtcctacg ccaggtctgcc
 180
 ttcgaggtgg agggggagtc ctccgggtgcc gggctaagtg ctgaccgctc ccgttccctc
 240
 tgtgcccag agttccgcaa actgggcttt tctaacagca acccagcaca ggacctggag
 300
 cgcgtgcccc ccggtctgct ggccctggac aacatgttgt acttctccag aaacgc
 356

<210> 1370

<211> 104

<212> PRT

<213> Homo sapiens

<400> 1370

Met Gly Asp Glu Met Ala His His Leu Tyr Val Leu Gln Ala Leu Met


```

1           5           10           15
Leu Gly Leu Leu Glu Pro Arg Met Arg Thr Pro Leu Asp Pro Tyr Ser
      20           25           30
Gln Glu Gln Arg Glu Gln Leu Gln Val Leu Arg Gln Ala Ala Phe Glu
      35           40           45
Val Glu Gly Glu Ser Ser Gly Ala Gly Leu Ser Ala Asp Arg Arg Arg
      50           55           60
Ser Leu Cys Ala Arg Glu Phe Arg Lys Leu Gly Phe Ser Asn Ser Asn
65           70           75           80
Pro Ala Gln Asp Leu Glu Arg Val Pro Pro Gly Leu Leu Ala Leu Asp
      85           90           95
Asn Met Leu Tyr Phe Ser Arg Asn
      100

```

<210> 1371
 <211> 648
 <212> DNA
 <213> Homo sapiens

```

<400> 1371
tcgcgagcac actccagcct ctgggctgcc tttttcaggt tttgcaaact ggctatgaat
60
tggtcagcgg ttggattagc cagttctgca gactgggtca caccagacc atctggaccg
120
cttatagaga agacatgttc caagtaccct ctttcctttg tctgcttttc tcatgggtac
180
tttgccctct aagaagccta ctttcctctt ttcctctcct cctctcccta tttctctttg
240
ttgagagagc agtcagatta acccaacaac tcttgaggatg ccttggtcac ctgagagcat
300
ggaaagtcca tgccctcacc agagtaatga ctaccatttc tccaaaactc tcctcatgcc
360
atccgatagg cagtattgat cagaagggga aatctagtgt gttaaaattg ataaaccagc
420
ttaagttata cctacaataa aagaccagc cttagcccat ggctgaatgt tgaatactgt
480
tgcattgaaa tttgggattt ctagttagag gctttataaa ggtagaatca tgcagacaca
540
tatacctgga aatattcgga acattctatt agcagaaatg caatgtagga agcttattgg
600
ttctagaaga atgtgtcatt gtcagtaatt ggaattactg acagatct
648

```

<210> 1372
 <211> 101
 <212> PRT
 <213> Homo sapiens

```

<400> 1372
Met Phe Gln Val Pro Ser Phe Leu Cys Leu Leu Phe Ser Trp Val Leu
1           5           10           15
Cys Pro Leu Arg Ser Leu Leu Ser Ser Phe Pro Leu Leu Leu Ser Leu
      20           25           30
Phe Leu Phe Val Glu Arg Ala Val Arg Leu Thr Gln Gln Leu Leu Glu

```


<212> DNA

<213> Homo sapiens

<400> 1375

nacgcgttcg accgcgccac gcgcgggcac gttatcgact acatcgactt tcacctgcac
 60
 ggctggcact ggcccgccctt caacatcgct gacatggcca tcgtgggcgg ggcgatcgcg
 120
 ctggtggccc agtcgttcat gagcgtggag aaccggccg ccacaaagga gtcccagtga
 180
 cattgggacg atccggaaat tcgcaatgca cacggtgcag gacaccaatc tgaagagaac
 240
 ggccccagc atgagcggcc gcggcttggc cctcatgcta gc
 282

<210> 1376

<211> 59

<212> PRT

<213> Homo sapiens

<400> 1376

Xaa Ala Phe Asp Arg Ala Thr Arg Gly His Val Ile Asp Tyr Ile Asp
 1 5 10 15
 Phe His Leu His Gly Trp His Trp Pro Ala Phe Asn Ile Ala Asp Met
 20 25 30
 Ala Ile Val Gly Gly Ala Ile Ala Leu Val Ala Gln Ser Phe Met Ser
 35 40 45
 Val Glu Asn Pro Ala Ala Thr Lys Glu Ser Gln
 50 55

<210> 1377

<211> 6306

<212> DNA

<213> Homo sapiens

<400> 1377

tagtaagaca ggtgccttca gttcactctc agtaaggggc tggttgcctg catgagtgtg
 60
 tgctctgtgt cactgtggat tggagttgaa aaagcttgac tggcgtcatt caggagctgg
 120
 atggcgtggg acatgtgcaa ccaggactct gagtctgtat ggagtgcacat cgagtgtgct
 180
 gctctgggtg gtgaagacca gcctctttgc ccagatcttc ctgaacttga tctttctgaa
 240
 ctagatgtga acgacttgga tacagacagc tttctgggtg gactcaagtg gtgcagtgc
 300
 caatcagaaa taatatccaa tcagtacaac aatgagcctt caaacatatt tgagaagata
 360
 gatgaagaga atgaggcaaa cttgctagca gtcctcacag agacactaga cagtctccct
 420
 gtggatgaag acggattgcc ctcatttgat gcgctgacag atggagacgt gaccactgac
 480
 aatgaggcta gtccttcctc catgcctgac ggcacccctc caccacagga ggcagaagag
 540

ccgtctctac ttaagaagct cttactggca ccagccaaca ctcagctaag ttataatgaa
600
tgcagtgggc tcagtagcca gaaccatgca aatcacaatc acaggatcag aacaaaccct
660
gcaattgtta agactgagaa ttcattggagc aataaagcga agagtatttg tcaacagcaa
720
aagccacaaa gacgtccctg ctcggagctt ctcaaatac tgaccacaaa cgatgaccct
780
cctcacacca aaccacaga gaacagaaac agcagcagag acaaatgcac ctccaaaaag
840
aagtcccaca cacagtgcga gtcacaacac ttacaagcca aaccaacaac tttatctctt
900
cctctgacct cagagtcacc aaatgacccc aagggttccc catttgagaa caagactatt
960
gaacgcacct taagtgtgga actctctgga actgcaggcc taactccacc caccactcct
1020
cctcataaag ccaaccaaga taaccctttt agggcttctc caaagctgaa gtcctcttgc
1080
aagactgtgg tgccaccacc atcaaagaag cccagggtaca gtgagtcttc tggtagacaa
1140
ggcaataact ccaccaagaa agggccggag caatccgagt tgtatgcaca actcagcaag
1200
tcctcagtc tctactggtg acacgaggaa aggaagacca agcggcccag tctgaggctg
1260
tttggtgacc atgactattg ccagtcaatt aattccaaaa cggaataact cattaatata
1320
tcacaggagc tccaagactc tagacaacta gaaaataaag atgtctctc tgattggcag
1380
gggcagattt gttcttccac agattcagac cagtgtctacc tgagagagac tttggaggca
1440
agcaagcagg tctctccttg cagcacaaga aaacagctcc aagaccagga aatccgagcc
1500
gagctgaaca agcacttcgg tcatccagc caagctgttt ttgacgacga agcagacaag
1560
accggtgaac tgagggacag tgatttcagt aatgaacaat tctccaaaact acctatgttt
1620
ataaattcag gactagccat ggatggcctg tttgatgaca gcgaagatga aagtgataaa
1680
ctgagctacc cttgggatgg cagcgaatcc tattcattgt tcaatgtgtc tccttcttgt
1740
tcttctttta actctccatg tagagattct gtgtcaccac ccaaatacctt attttctcaa
1800
agaccccaaa ggatgcgctc tcgttcaagg tccttttctc gacacaggtc gtgttcccga
1860
tcaccatatt ccaggatcaag atcaaggctc ccaggcagta gatcctcttc aagatcctgc
1920
tattactatg agtcaagcca ctacagacac cgcacgcacc gaaattctcc cttgtatgtg
1980
agatcacgtt caagatcgcc ctacagccgt cggcccagggt atgacagcta cgaggaatat
2040
cagcagcaga ggctgaagag ggaagaatat cgcagagagt atgagaagcg agagtctgag
2100
agggccaagc aaaggagag gcagaggcag aaggcaattg aagagcgccg tgtgatttat
2160

gtcggtaaaa tcagacctga cacaacacgg acagaactga gggaccgttt tgaagttttt
2220
ggtgaaattg aggagtgcac agtaaatctg cgggatgatg gagacagcta tggtttcatt
2280
acctaccgtt atacctgtga tgcttttgct gctcttgaaa atggatacac tttgcgagg
2340
tcaaacgaaa ctgactttga gctgtacttt tgtggacgca agcaattttt caagtctaac
2400
tatgcagacc tagattcaaa ctcatgatgac tttgaccctg cttccaccaa gagcaagtat
2460
gactctctgg attttgatag tttactgaaa gaagctcaga gaagcttgcg caggtaacat
2520
gttccttagc tgaggatgac agagggatgg cgaatacctc atgggacagc gcgtccttcc
2580
ctaaagacta ttgcaagtca tacttaggaa tttctcctac tttacactct ctgtacaaaa
2640
acaaaacaaa acaacaacaa tacaacaaga acaacaacaa caataacaac aatggtttac
2700
atgaacacag ctgctgaaga ggcaagagac agaatagatc ccagtaagca catgtttatt
2760
catgggtgtc agctttgctt ttcctggagt ctcttggtga tggagtgtgc gtgtgtgcat
2820
gtatgtgtgt gtgtatgtat gtgtgtggtg tgtgtgcttg gtttagggga agtatgtgtg
2880
ggtacatgtg aggactgggg gcacctgacc agaatgcgca agggcaaacc atttcaaattg
2940
gcagcagttc catgaagaca cacttaaaac ctagaacttc aaaatgttcg tattctattc
3000
aaaaggaaaa atatatatat atatatatat atataaatta aaaaggaaaag aaaactaaca
3060
accaaccaac caaccaacca accacaaacc accctaaaat gacagccgct gatgtctggg
3120
catcagcctt tgtactctgt ttttttaaga aagtgcagaa tcaacttgaa gcaagctttc
3180
ttcataacg taatgattat atgacaatcc tgaagaaacc acagggtcca tagaactaat
3240
atctgtctc tctctctctc tctctctctc tctttttttt ttctttttcc ttttgccatg
3300
gaatctgggt gggagaggat actgcgggca ccagaatgct aaagtttcct aacattttga
3360
agtttctgta gttcatcctt aatcctgaca cccatgtaaa tgtccaaaat gttgatcttc
3420
cactgcaaat ttcaaaagcc ttgtcaatgg tcaagcgtgc agcttggtca gcggttcttc
3480
ctgaggagcg gacaccgggt tacattacta acgagagttg ggtagaactc tctgagatgt
3540
gttcagatag tgtaattgct acattctctg atgtagttaa gtatttacag atgttaaatg
3600
gagtattttt attttatgta tatactatac aacaatgttc ttttttgta cagctatgca
3660
ctgtaaattg agccttcttt tcaaaactgc taaatttttc ttaatcaaga atattcaaat
3720
gtaattatga ggtgaaacaa ttattgtaca ctaacatatt tagaagctga acttactgct
3780

tatatatatt tgattgtaca aacaaaaaga cagtgtgtgt gtctgttgag tgcaacaaga
3840
gcaaaatgat gctttccgca catccatccc ttaggtgagc ttcaatctaa gcattctgtc
3900
aagaaatata ctagtcccct aaaggtatta accacttctg cgatattttt ccacattttc
3960
ttgtcgcttg tttttctttg aagttttata cactggattt gttaggggaa tgaaattttc
4020
tcatctaaaa tttttctaga agatatcatg attttatgta aagtctctca atgggtaacc
4080
attaagaaat gtttttattt tctctatcaa cagtagtttt gaaactagaa gtcaaaaatc
4140
tttttaaaat gctgttttgt ttttaatttt gtgattttta tttgatacaa aatgctgagg
4200
taataattat agtatgattt ttacaataat taatgtgtgt ctgaagacta tctttgaagc
4260
cagtatttct tccccttggc agagtatgac gatggatttt atctgtattt tttacagtta
4320
tgcattctgt ataaatactg atatttcatt cctttgttta ctaaagagac atatttatca
4380
gttcagata gcctatttat tataaattat gagatgatga aaataataaa gccagtggaa
4440
attttctacc taggatgcat gacaattgtc aggttggagt gtaagtgcct catttgggaa
4500
attcagcttt tgcagaagca gtgtttctac ttgcactagc atggcctctg acgtgaccat
4560
gggtgtgttc ttgatgacat tgcttctgct aaatttaata aaaacttcag aaaaacctcc
4620
attttgatca tcaggatttc atctgagtgt ggagtccttg gaatggaatt cagtaacatt
4680
tggagtgtgt attcaagttt ctaaattgag attcgattac tgtttggctg acatgacttt
4740
tctggaagac atgatacacc tactactcaa ttgttctttt cctttctctc gccaacacg
4800
atcttgtaag atggatttca cccccaggcc aatgcagcta attttgatag ctgcattcat
4860
ttatcaccag catattgtgt tctgagttaa tccactgttt gtctgtcgg atgcttgctt
4920
gattttttgg cttcttattt ctaagtagat agaaagcaat aaaaatacta tgaaatgaaa
4980
gaacttggtc acaggttctg cgttacaaca gtaacacatc tttaatccgc ctaattcttg
5040
ttgttctgta gggttaaagc aggtatttta actgtgtgaa cgccaaacta aagtttacag
5100
tctttcttct tgaattttga gtatcttctg ttgtagaata ataataaaaa gactattaag
5160
agcaataaat tattttaaga aatcgagatt tagtaaatcc tattatgtgt tcaaggacca
5220
catgtgttct ctattttgcc tttaaatttt tgtgaaccaa ttttaaatat attctccttt
5280
ttgccctgga ttgttgacat gagtggataa cttgggttct tttcttactt atcaaaagac
5340
agcactacag atatcatatt gaggattaat ttatcccccc taccctcagc ctgacaaaata
5400

ttgttaccat gaagatagtt ttcctcaatg gacttcaaatt tgcattctaga attagtggag
 5460
 cttttgtatc ttctgcagac actgtgggta gcccataaaa atgtaagctg tgctcctctc
 5520
 atttttattt ttattttttt gggagagaat atttcaaattg aacacgtgca ccccatcatc
 5580
 actggaggca aatttcggca tagatctgta ggatttttag aagaccgtgg gccattgcct
 5640
 tcatgccgtg gtaagtacca catctacaat tttggtaacc gaactgggtgc tttagtaatg
 5700
 tggatttttt tcttttttaa aagagatgta gcaaaataat tcttccagtgc caacaaaatc
 5760
 aattttttgc taaacgactc caagaacaac agttgggctg tcaacattca aagcagcaga
 5820
 gagggaaactt tgcactattg ggggatgatg tttgggtcag ttgataaaaag gaaacctttt
 5880
 catgccttta gatgtgagct tccagtaggt aatgattatg tgcctttct tgatggctgt
 5940
 aatgagaact tcaatcactg tagtctaaga cctgatctat agatgacctga gaatagccat
 6000
 gtactataat gtgatgatc taaatttgta cctatgtgac agacattttc aataatgtga
 6060
 actgctgatt tgatggagct actttaagat ttgtagggtga aagtgtataa ctgttggttg
 6120
 aactatgctg aagagggaaa gtgagcgatt agttgagccc ttgccggggc tttttccac
 6180
 ctgccaatc tacatgtatt gttgtggttt tattcattgt atgaaaattc ctgtgatttt
 6240
 ttttaaatgt gcagtacaca tcagcctcac tgagctaata aagggaaacg aatgtttcaa
 6300
 atctaa
 6306

<210> 1378

<211> 798

<212> PRT

<213> Homo sapiens

<400> 1378

Met	Ala	Trp	Asp	Met	Cys	Asn	Gln	Asp	Ser	Glu	Ser	Val	Trp	Ser	Asp
1				5				10					15		
Ile	Glu	Cys	Ala	Ala	Leu	Val	Gly	Glu	Asp	Gln	Pro	Leu	Cys	Pro	Asp
		20						25				30			
Leu	Pro	Glu	Leu	Asp	Leu	Ser	Glu	Leu	Asp	Val	Asn	Asp	Leu	Asp	Thr
		35					40					45			
Asp	Ser	Phe	Leu	Gly	Gly	Leu	Lys	Trp	Cys	Ser	Asp	Gln	Ser	Glu	Ile
		50				55					60				
Ile	Ser	Asn	Gln	Tyr	Asn	Asn	Glu	Pro	Ser	Asn	Ile	Phe	Glu	Lys	Ile
65				70				75						80	
Asp	Glu	Glu	Asn	Glu	Ala	Asn	Leu	Leu	Ala	Val	Leu	Thr	Glu	Thr	Leu
			85					90					95		
Asp	Ser	Leu	Pro	Val	Asp	Glu	Asp	Gly	Leu	Pro	Ser	Phe	Asp	Ala	Leu
		100						105					110		
Thr	Asp	Gly	Asp	Val	Thr	Thr	Asp	Asn	Glu	Ala	Ser	Pro	Ser	Ser	Met

115	120	125
Pro Asp Gly Thr Pro Pro Pro Gln Glu Ala Glu Glu Pro Ser Leu Leu		
130	135	140
Lys Lys Leu Leu Leu Ala Pro Ala Asn Thr Gln Leu Ser Tyr Asn Glu		
145	150	155
Cys Ser Gly Leu Ser Thr Gln Asn His Ala Asn His Asn His Arg Ile		160
	165	170
Arg Thr Asn Pro Ala Ile Val Lys Thr Glu Asn Ser Trp Ser Asn Lys		175
	180	185
Ala Lys Ser Ile Cys Gln Gln Gln Lys Pro Gln Arg Arg Pro Cys Ser		190
	195	200
Glu Leu Leu Lys Tyr Leu Thr Asn Asp Asp Pro Pro His Thr Lys		205
	210	215
Pro Thr Glu Asn Arg Asn Ser Ser Arg Asp Lys Cys Thr Ser Lys Lys		220
225	230	235
Lys Ser His Thr Gln Ser Gln Ser Gln His Leu Gln Ala Lys Pro Thr		240
	245	250
Thr Leu Ser Leu Pro Leu Thr Pro Glu Ser Pro Asn Asp Pro Lys Gly		255
	260	265
Ser Pro Phe Glu Asn Lys Thr Ile Glu Arg Thr Leu Ser Val Glu Leu		270
	275	280
Ser Gly Thr Ala Gly Leu Thr Pro Pro Thr Thr Pro Pro His Lys Ala		285
	290	295
Asn Gln Asp Asn Pro Phe Arg Ala Ser Pro Lys Leu Lys Ser Ser Cys		300
305	310	315
Lys Thr Val Val Pro Pro Pro Ser Lys Lys Pro Arg Tyr Ser Glu Ser		320
	325	330
Ser Gly Thr Gln Gly Asn Asn Ser Thr Lys Lys Gly Pro Glu Gln Ser		335
	340	345
Glu Leu Tyr Ala Gln Leu Ser Lys Ser Ser Val Leu Thr Gly Gly His		350
	355	360
Glu Glu Arg Lys Thr Lys Arg Pro Ser Leu Arg Leu Phe Gly Asp His		365
	370	375
Asp Tyr Cys Gln Ser Ile Asn Ser Lys Thr Glu Ile Leu Ile Asn Ile		380
385	390	395
Ser Gln Glu Leu Gln Asp Ser Arg Gln Leu Glu Asn Lys Asp Val Ser		400
	405	410
Ser Asp Trp Gln Gly Gln Ile Cys Ser Ser Thr Asp Ser Asp Gln Cys		415
	420	425
Tyr Leu Arg Glu Thr Leu Glu Ala Ser Lys Gln Val Ser Pro Cys Ser		430
	435	440
Thr Arg Lys Gln Leu Gln Asp Gln Glu Ile Arg Ala Glu Leu Asn Lys		445
	450	455
His Phe Gly His Pro Ser Gln Ala Val Phe Asp Asp Glu Ala Asp Lys		460
465	470	475
Thr Gly Glu Leu Arg Asp Ser Asp Phe Ser Asn Glu Gln Phe Ser Lys		480
	485	490
Leu Pro Met Phe Ile Asn Ser Gly Leu Ala Met Asp Gly Leu Phe Asp		495
	500	505
Asp Ser Glu Asp Glu Ser Asp Lys Leu Ser Tyr Pro Trp Asp Gly Thr		510
	515	520
Gln Ser Tyr Ser Leu Phe Asn Val Ser Pro Ser Cys Ser Ser Phe Asn		525
	530	535
Ser Pro Cys Arg Asp Ser Val Ser Pro Pro Lys Ser Leu Phe Ser Gln		540

545 550 555 560
 Arg Pro Gln Arg Met Arg Ser Arg Ser Arg Ser Phe Ser Arg His Arg
 565 570 575
 Ser Cys Ser Arg Ser Pro Tyr Ser Arg Ser Arg Ser Arg Ser Pro Gly
 580 585 590
 Ser Arg Ser Ser Ser Arg Ser Cys Tyr Tyr Tyr Glu Ser Ser His Tyr
 595 600 605
 Arg His Arg Thr His Arg Asn Ser Pro Leu Tyr Val Arg Ser Arg Ser
 610 615 620
 Arg Ser Pro Tyr Ser Arg Arg Pro Arg Tyr Asp Ser Tyr Glu Glu Tyr
 625 630 635 640
 Gln His Glu Arg Leu Lys Arg Glu Glu Tyr Arg Arg Glu Tyr Glu Lys
 645 650 655
 Arg Glu Ser Glu Arg Ala Lys Gln Arg Glu Arg Gln Arg Gln Lys Ala
 660 665 670
 Ile Glu Glu Arg Arg Val Ile Tyr Val Gly Lys Ile Arg Pro Asp Thr
 675 680 685
 Thr Arg Thr Glu Leu Arg Asp Arg Phe Glu Val Phe Gly Glu Ile Glu
 690 695 700
 Glu Cys Thr Val Asn Leu Arg Asp Asp Gly Asp Ser Tyr Gly Phe Ile
 705 710 715 720
 Thr Tyr Arg Tyr Thr Cys Asp Ala Phe Ala Ala Leu Glu Asn Gly Tyr
 725 730 735
 Thr Leu Arg Arg Ser Asn Glu Thr Asp Phe Glu Leu Tyr Phe Cys Gly
 740 745 750
 Arg Lys Gln Phe Phe Lys Ser Asn Tyr Ala Asp Leu Asp Ser Asn Ser
 755 760 765
 Asp Asp Phe Asp Pro Ala Ser Thr Lys Ser Lys Tyr Asp Ser Leu Asp
 770 775 780
 Phe Asp Ser Leu Leu Lys Glu Ala Gln Arg Ser Leu Arg Arg
 785 790 795

<210> 1379

<211> 590

<212> DNA

<213> Homo sapiens

<400> 1379

nnacgcgtcc ctgcccaacc tggctcagtt cagctggaga cagggccgac ccgcttgttg
 60
 gagtcgtcac gaggactgag gtgcgtcctg agatgcctgc ttgccaggtg ttagtgctcg
 120
 tttgctgggg ccgcggtgac agagtgccat agaccaggca gctgaaacag agttcaattt
 180
 cttttaaaagc ccggggggccg aaaaccacct aacaagggtt tgtgggggct cgttccttgg
 240
 gaggacgtga gggcaatctg gtgtccctgc cgtgtggccg cgtcacccat ctctgcctc
 300
 ggtgtccctg ccctgtggcc gcgtcaccca tctctgccct cggagtccct gccgtgtggc
 360
 cgcgtcnacc catctctgcc ctccggagtc ctgccgtgtg gccgtgtcna cccacctctg
 420
 ccctcggtgt ccctgccgtg tggccgagtc naccacctc tgccctcggt gtccttgcg
 480

tgtggccgcg tcnaccaccc tctgccctcg gtgtccccgc cgtgtggccg cgtcnaccca
 540
 tctctgcctt cgggtgtcccc gccgtgtggc cgcgtcaccc atctctgcag
 590

<210> 1380

<211> 141

<212> PRT

<213> Homo sapiens

<400> 1380

Asn	Arg	Val	Gln	Phe	Leu	Leu	Lys	Pro	Gly	Gly	Arg	Lys	Pro	Leu	Asn
1				5					10					15	
Lys	Gly	Leu	Trp	Gly	Leu	Val	Pro	Trp	Glu	Asp	Val	Arg	Ala	Ile	Trp
		20						25					30		
Cys	Pro	Cys	Arg	Val	Ala	Ala	Ser	Pro	Ile	Ser	Ala	Leu	Gly	Val	Pro
	35						40					45			
Ala	Leu	Trp	Pro	Arg	His	Pro	Ser	Leu	Pro	Ser	Glu	Ser	Leu	Pro	Cys
	50					55					60				
Gly	Arg	Val	Xaa	Pro	Ser	Leu	Pro	Ser	Glu	Ser	Leu	Pro	Cys	Gly	Arg
65					70				75					80	
Val	Xaa	Pro	Pro	Leu	Pro	Ser	Val	Ser	Leu	Pro	Cys	Gly	Arg	Val	Xaa
				85					90					95	
Pro	Pro	Leu	Pro	Ser	Val	Ser	Leu	Pro	Cys	Gly	Arg	Val	Xaa	Pro	Pro
			100					105					110		
Leu	Pro	Ser	Val	Ser	Pro	Pro	Cys	Gly	Arg	Val	Xaa	Pro	Ser	Leu	Pro
		115					120					125			
Ser	Val	Ser	Pro	Pro	Cys	Gly	Arg	Val	Thr	His	Leu	Cys			
	130						135					140			

<210> 1381

<211> 433

<212> DNA

<213> Homo sapiens

<400> 1381

ctgaccacct tagctaagca ttccctttct ggctgtagcc agatatgatg tgtgagtcctg
 60
 cagatcatgc tggccccctt gacgaagcat gcactttctg gcctaggccg gatacgatgt
 120
 gtgaggccac ggagagtcca ggccggagca cactgaccgc cttggctaag cattcatttc
 180
 cgtgtcctgg ctgccatcag agaggaggca ggtccacacag atctgctctt gtttctgctg
 240
 gtctgaagtg gggtttcagt ttctgtgtgg aacaattcat taggggtttg atctcaaagc
 300
 ccaggcattg gccctgtacc tgttcttcac ggaagccgaa ctctgctta tgggccccag
 360
 cctacaggca gccaaatggg ctagccccag ccaaggggct gtttggcgac ctctgaacca
 420
 cagctctcca tgg
 433

<210> 1382

<211> 123
 <212> PRT
 <213> Homo sapiens

<400> 1382
 Met Met Cys Glu Ser Ala Asp His Ala Gly Pro Leu Asp Glu Ala Cys
 1 5 10 15
 Thr Phe Trp Pro Arg Pro Asp Thr Met Cys Glu Ala Thr Glu Ser Pro
 20 25 30
 Gly Arg Ser Thr Leu Thr Ala Leu Ala Lys His Ser Phe Pro Cys Pro
 35 40 45
 Gly Cys His Gln Arg Gly Gly Arg Ser His Arg Ser Ala Leu Val Ser
 50 55 60
 Ala Gly Leu Lys Trp Gly Phe Ser Phe Cys Val Glu Gln Phe Ile Arg
 65 70 75 80
 Gly Leu Ile Ser Lys Pro Arg His Trp Pro Cys Thr Cys Ser Ser Arg
 85 90 95
 Lys Pro Asn Ser Cys Leu Trp Ala Pro Ala Tyr Arg Gln Pro Asn Gly
 100 105 110
 Leu Ala Pro Ala Lys Gly Leu Phe Gly Asp Leu
 115 120

<210> 1383
 <211> 906
 <212> DNA
 <213> Homo sapiens

<400> 1383
 nnaccggtgt tttctgtatc aactgagaga accacatgtc aaggcagcaa agtgaccacg
 60
 caccacagca cacctgcctc tggcttgcag gccaagatgg cccctatgtc aaccaggggt
 120
 tctgcagctg gtctctgggag acccacggcc tcctctctcc tgcccctgac caatacacca
 180
 caaacgcctc acatgagctc acccacaccc ccaagagcca tgggtgtcac aaagcaaaga
 240
 ccaagccaga ctcaatcctg tggccccagg gtcagccgca gagcagacaa ctagaacctc
 300
 acaagaagct gaacacaggc tgggtcacct ataaacaggg aggccatcct gaagggagga
 360
 agcaccacaac cagaggtgaa ctcaccttgg accattcgac aatgcagtcc aggcagaagt
 420
 aatggggcaca gttctnccgg cgtccccacg gcctgggtctc tgaatgcgtt gagacagatt
 480
 gggcagctct ctgcatcatc atcagaattg aaagagccag cggttccag tttcccctga
 540
 gtaccgcgta cctccagcaa tgtctccccg tcgtcttcag aatcctcgga accagatctg
 600
 tcttccaggt ctctctctc agacgcccc tcgtcttctc cgtctgtgcc atctccatgc
 660
 tcgctgtcac tgcgtcccc agagtcccca ctgctgcca cgctgcttcc ttcaaagtca
 720
 cctgccgggt ccgcagggcc gacctgtggg tgtccatccg gccctggggt ccggggccaca
 780

agctcatcca ggctgtcgtc atccattgct gcacattgag ctcagctccg gaaacctcgt
 840
 gtcccgcagg cgctcgcgag cgctcgccgc cgctgcacga ccgagagtcg ctccctaggcc
 900
 cggccg
 906

<210> 1384
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 1384
 Xaa Pro Val Phe Ser Val Ser Thr Glu Arg Thr Thr Cys Gln Gly Ser
 1 5 10 15
 Lys Val Thr Thr His His Ser Thr Pro Ala Ser Gly Leu Gln Ala Lys
 20 25 30
 Met Ala Pro Met Ser Thr Arg Val Ser Ala Ala Gly Pro Gly Arg Pro
 35 40 45
 Thr Ala Ser Ser Leu Leu Pro Leu Thr Asn Thr Pro Gln Thr Pro His
 50 55 60
 Met Ser Ser Pro Thr Pro Pro Arg Ala Met Val Leu Thr Lys Gln Arg
 65 70 75 80
 Pro Ser Gln Thr Gln Ser Cys Gly Pro Arg Val Ser Arg Arg Ala Asp
 85 90 95
 Asn

<210> 1385
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 1385
 acgcgtgcac tgggtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg
 60
 ncatggtgtg tgcacgtgtg cnaactgtgta tgcattgtaa tgtgcacgtg tgcactgtgt
 120
 gtggcggtgta tgcattggtgt gtgcacgtgt gcactgtgtg tgggggtgtat gncatggtgg
 180
 gtgcacatat gcactggggg gtgtgtatgc
 210

<210> 1386
 <211> 70
 <212> PRT
 <213> Homo sapiens

<400> 1386
 Thr Arg Ala Leu Gly Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys
 1 5 10 15
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met
 20 25 30
 Val Met Cys Thr Cys Ala Leu Cys Val Ala Cys Met His Gly Val Cys

35 40 45
 r Cys Ala Leu Cys Val Gly Cys Met Xaa Trp Trp Val His Ile Cys
 50 55 60
 Thr Gly Gly Cys Val Cys
 65 70

<210> 1387
 <211> 521
 <212> DNA
 <213> Homo sapiens

<400> 1387
 ggccgcaact ccaccagcga aggcgatgtg cggggcccatg aagggaccaa aggccaggta
 60
 gtccaagccg aaggtgtttc cggttgcggc aaacactccc caggaggcca gcacacagaa
 120
 gccggtgagg acgaaggcgt agttgccgcc gatggcagct ccgacagcac cgccggcgat
 180
 ggccggcaagg agtccgaaga cgaagactcc gatagaggtg gtgaacatcg gtgttccttt
 240
 gtgagggcgg ggtatcccg c gatctgtcat ccgcacgcag cgacgggtgc ggcattttct
 300
 ggacatccct aggcgttgac ccaggggtgg ggtggttcag acgtgtgccg gcgcacgtct
 360
 gaaccacccg gtatcagcag gtgccagggg cggattcccc agcacctgac tcatatgcgt
 420
 cgatgagatc gatgttgccc ttggagtggg aactcgggtc gaagggtgtac ccgatgaact
 480
 cgtgggctaa gcgacgggcg agttcgcgac cgatgacgcg t
 521

<210> 1388
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 1388
 Gly Arg Asn Ser Thr Ser Glu Gly Asp Val Arg Ala His Glu Gly Thr
 1 5 10 15
 Lys Gly Gln Val Val Gln Ala Glu Gly Val Ser Gly Cys Gly Lys His
 20 25 30
 Ser Pro Gly Gly Gln His Thr Glu Ala Gly Glu Asp Glu Gly Val Val
 35 40 45
 Ala Ala Asp Gly Ser Ser Asp Ser Thr Ala Gly Asp Gly Gly Lys Glu
 50 55 60
 Ser Glu Asp Glu Asp Ser Asp Arg Gly Gly Glu His Arg Cys Ser Phe
 65 70 75 80
 Val Arg Ala Gly Tyr Pro Ala Ile Cys His Pro His Ala Ala Thr Gly
 85 90 95
 Ala Ala Phe Ser Gly His Pro
 100

<210> 1389
 <211> 4013

<212> DNA

<213> Homo sapiens

<400> 1389

cctctgaaga tggaaacatc aggaatgaca acaccgtcac tgaagacaga cggtagggaga
60
cgcacagcca catcaccacc ccccaacaacc tcccagacca tcattttccac cattcccagc
120
actgccatgc acacccgctc cacagctgcc cccatcccca tccctgcctga gagaggagtt
180
tccctcttcc cctatggggc agacgccggg gacctggagt tcgtcaggag gaccgtggac
240
ttcacctccc cactcttcaa gccggcgact ggcttcccc ttggctctc tctccgtgat
300
tcctctact tcacagacaa tggccagatc atcttcccag agtcagacta ccagattttc
360
tcctacccca acccaactccc aacaggcttc acaggccggg accctgtggc cctggtaggt
420
ccgttctggg acgatgctga cttctccact ggtcggggga ccacatttta tcaggaatac
480
gagacgttct atggtgaaca cagcctgcta gtccagcagg ccgagtcttg gattagaaag
540
atcacaaaca acgggggcta caaggccagg tgggccctaa aggtcacgtg ggtcaatgcc
600
cacgcctatc ctgcccagtg gaccctcggg agcaacacct accaagccat cctctccacg
660
gacgggagca ggtcctatgc cctgtttctc taccagagcg gtgggatgca gtgggacgtg
720
gcccagcgct caggcaaccc ggtgctcatg ggcttctcta gtggagatgg ctatttcgaa
780
aacagccac tgatgtccca gccagtgtgg gagaggatc gccctgatag attcctgaat
840
tccaactcag gcctccaagg gctgcagttc tacaggctac accgggaaga aaggcccaac
900
taccgtctcg agtgctgca gtggctgaag agccagcctc ggtggcccag ctggggctgg
960
aaccaggtct cctgcccttg ttcctggcag cagggacgac gggacttacg attccaaccc
1020
gtcagcatag gtcgctgggg cctcggcagt aggcagctgt gcagcttcac ctcttggcga
1080
ggaggcgtgt gctgcagcta cgggccctgg ggagagtctc gtgaaggctg gcacgtgcag
1140
cgtccttggc agttggccca ggaactggag ccacagagct ggtgctgccg ctggaatgac
1200
aagccctacc tctgtgccct gtaccagcag aggcggcccc acgtgggctg tgctacatac
1260
aggccccac agcccgctg gatgttcggg gacccccaca tcaccacctt ggaagggtg
1320
agttacacct tcaatgggct gggggacttc ctgctggctg gggcccaaga cgggaactcc
1380
tccttctgctc ttcagggccg caccgcccag actggctcag cccaggccac caacttcac
1440
gcctttgcgg ctcaagtacc ctccagcagc ctgggccccg tcacgggtcca atggctcctt
1500

gagcctcacg acgcaatccg tgcctgctg gataaccaga ctgtgacatt tcagcctgac
1560
catgaagacg gcgaggcca ggagacgttc aacgccaccg gagtcctcct gagccgcaac
1620
ggctctgagg tctcgccag cttegacggc tgggccaccg tctcggtgat cgcgctctcc
1680
aacatcctcc acgcctccgc cagcctccc cccgagtacc agaaccgcac ggaggggctc
1740
ctgggggtct ggaataacaa tccagaggac gacttcagga tgcccaatgg ctccaccatt
1800
ccccagggg gccctgagga gatgcttttc cactttggaa tgacctggca gatcaacggg
1860
acaggcctcc ttggcaagag gaatgaccag ctgccttcca acttcacccc tgttttctac
1920
tcacaactgc aaaaaaacag ctctgggct gaacatttga tctccaactg tgacggagat
1980
agctcatgca tctatgacac cctggccctg cgcaacgcaa gcatcggact tcacacgagg
2040
gaagtcagta aaaactacga gcaggcgaac gccaccctca atcagtacc gccctccatc
2100
aatggtggtc gtgtgattga agcctacaag gggcagacca cgctgattca gtacaccagc
2160
aatgctgagg atgccaaact cagctcaga gacagctgca ccgacttga gctctttgag
2220
aatgggacgt tgctgtggac acccaagtcg ctggagccat tcaactctga gattctagca
2280
agaagtgcc agattggctt ggcactctga ctccagccca ggactgtggt ctgccattgc
2340
aatgcagaga gccagtgttt gtacaatcag accagcaggg tgggcaactc ctccctggag
2400
gtggctggct gcaagtgtga cgggggcacc ttggccgct actgcgaggg ctccgaggat
2460
gcctgtgagg agccgtgctt cccgagtgc cactgcgttc ctgggaaggg ctgcgagggc
2520
tgccctccaa acctgactgg ggatgggcgg cactgtgcgg ctctggggag ctctttcctg
2580
tgtcagaacc agtcctgccc tgtgaattac tgctacaatc aaggccactg ctacatctcc
2640
cagactctgg gctgtcagcc catgtgcacc tgccccccag ccttcaactga cagccgctgc
2700
ttcctggctg ggaacaactt cagtccaact gtcaacctag aacttccctt aagagtcac
2760
cagctcttgc tcagtgaaga ggaaaatgcc tccatggcag aggtcaacgc ctcggtggca
2820
tacagactgg ggaccctgga catgcggggc ttctccgca acagccaagt ggaacgaatc
2880
gattctgcag caccggcctc gggaagcccc atccaacact ggatggatc ctccgagttc
2940
cagtaccgcc ctccggggcc ggtcattgac ttctgaaca accagctgct ggccgcggtg
3000
gtggaggcgt tcttatacca cgttccacgg aggagtgagg agcccaggaa cgacgtggtc
3060
ttccagccca tctccgggga agacgtgcgc gatgtgacag ccctgaacgt gagcacgctg
3120

aaggcttact tcagatgcga tggctacaag ggctacgacc tggctctacag cccccagagc
 3180
 ggcttcacct gcgtgtcccc gtgcagtagg ggctactgtg accatggagg ccagtgccag
 3240
 cacctgccca gtgggccccg ctgcagctgt gtgtccttct ccatctacac ggctggggc
 3300
 gagcactgtg agcacctgag catgaaactc gacgcgttct tcggcatctt ctttggggcc
 3360
 ctggggggcc tcttgctgct gggggtcggg acgttcgtgg tcctgcgctt ctggggttgc
 3420
 tccggggcca ggttctccta tttcctgaac tcagctgagg ccttgccttg aaggggcagc
 3480
 tgtggcctag gctacctcaa gactcacctc atccttaccg cacatttaag gcgccattgc
 3540
 ttttgggaga ctggaaaagg gaaggtgact gaaggctgtc aggattcttc aaggagaatg
 3600
 aatactggga atcaagacaa gactatacct tatccatagg cgcagggtgca cagggggagg
 3660
 ccataaagat caaacatgca tggatgggtc ctcacgcaga cacaccaca gaaggacact
 3720
 agcctgtgca cgcgcgcgtg cacacacaca cacacacaca cgagttcata atgtggtgat
 3780
 ggccctaagt taagcaaaat gcttctgcac acaaaactct ctggtttact tcaaattaac
 3840
 tctatttaaa taaagtctct ctgacttttt gtgtctccaa aaccaggaat tccattcctg
 3900
 attttcttct ggtggccgaa gggctggaca cagacttctc ccaaccatca gagggcacag
 3960
 agtgtggagg ttaagtgtg ggcagcagtg gagcattagg ggcagctgga tcc
 4013

<210> 1390

<211> 1156

<212> PRT

<213> Homo sapiens

<400> 1390

Pro	Leu	Lys	Met	Glu	Thr	Ser	Gly	Met	Thr	Thr	Pro	Ser	Leu	Lys	Thr
1				5					10					15	
Asp	Gly	Gly	Arg	Arg	Thr	Ala	Thr	Ser	Pro	Pro	Pro	Thr	Thr	Ser	Gln
			20					25					30		
Thr	Ile	Ile	Ser	Thr	Ile	Pro	Ser	Thr	Ala	Met	His	Thr	Arg	Ser	Thr
			35				40					45			
Ala	Ala	Pro	Ile	Pro	Ile	Leu	Pro	Glu	Arg	Gly	Val	Ser	Leu	Phe	Pro
			50			55					60				
Tyr	Gly	Ala	Asp	Ala	Gly	Asp	Leu	Glu	Phe	Val	Arg	Arg	Thr	Val	Asp
65					70					75				80	
Phe	Thr	Ser	Pro	Leu	Phe	Lys	Pro	Ala	Thr	Gly	Phe	Pro	Leu	Gly	Ser
			85						90					95	
Ser	Leu	Arg	Asp	Ser	Leu	Tyr	Phe	Thr	Asp	Asn	Gly	Gln	Ile	Ile	Phe
			100					105					110		
Pro	Glu	Ser	Asp	Tyr	Gln	Ile	Phe	Ser	Tyr	Pro	Asn	Pro	Leu	Pro	Thr
			115				120					125			
Gly	Phe	Thr	Gly	Arg	Asp	Pro	Val	Ala	Leu	Val	Ala	Pro	Phe	Trp	Asp

130 135 140
 Asp Ala Asp Phe Ser Thr Gly Arg Gly Thr Thr Phe Tyr Gln Glu Tyr
 145 150 155 160
 Glu Thr Phe Tyr Gly Glu His Ser Leu Leu Val Gln Gln Ala Glu Ser
 165 170 175
 Trp Ile Arg Lys Ile Thr Asn Asn Gly Gly Tyr Lys Ala Arg Trp Ala
 180 185 190
 Leu Lys Val Thr Trp Val Asn Ala His Ala Tyr Pro Ala Gln Trp Thr
 195 200 205
 Leu Gly Ser Asn Thr Tyr Gln Ala Ile Leu Ser Thr Asp Gly Ser Arg
 210 215 220
 Ser Tyr Ala Leu Phe Leu Tyr Gln Ser Gly Gly Met Gln Trp Asp Val
 225 230 235 240
 Ala Gln Arg Ser Gly Asn Pro Val Leu Met Gly Phe Ser Ser Gly Asp
 245 250 255
 Gly Tyr Phe Glu Asn Ser Pro Leu Met Ser Gln Pro Val Trp Glu Arg
 260 265 270
 Tyr Arg Pro Asp Arg Phe Leu Asn Ser Asn Ser Gly Leu Gln Gly Leu
 275 280 285
 Gln Phe Tyr Arg Leu His Arg Glu Glu Arg Pro Asn Tyr Arg Leu Glu
 290 295 300
 Cys Leu Gln Trp Leu Lys Ser Gln Pro Arg Trp Pro Ser Trp Gly Trp
 305 310 315 320
 Asn Gln Val Ser Cys Pro Cys Ser Trp Gln Gln Gly Arg Arg Asp Leu
 325 330 335
 Arg Phe Gln Pro Val Ser Ile Gly Arg Trp Gly Leu Gly Ser Arg Gln
 340 345 350
 Leu Cys Ser Phe Thr Ser Trp Arg Gly Gly Val Cys Cys Ser Tyr Gly
 355 360 365
 Pro Trp Gly Glu Phe Arg Glu Gly Trp His Val Gln Arg Pro Trp Gln
 370 375 380
 Leu Ala Gln Glu Leu Glu Pro Gln Ser Trp Cys Cys Arg Trp Asn Asp
 385 390 395 400
 Lys Pro Tyr Leu Cys Ala Leu Tyr Gln Gln Arg Arg Pro His Val Gly
 405 410 415
 Cys Ala Thr Tyr Arg Pro Pro Gln Pro Ala Trp Met Phe Gly Asp Pro
 420 425 430
 His Ile Thr Thr Leu Asp Gly Val Ser Tyr Thr Phe Asn Gly Leu Gly
 435 440 445
 Asp Phe Leu Leu Val Gly Ala Gln Asp Gly Asn Ser Ser Phe Leu Leu
 450 455 460
 Gln Gly Arg Thr Ala Gln Thr Gly Ser Ala Gln Ala Thr Asn Phe Ile
 465 470 475 480
 Ala Phe Ala Ala Gln Tyr Arg Ser Ser Ser Leu Gly Pro Val Thr Val
 485 490 495
 Gln Trp Leu Leu Glu Pro His Asp Ala Ile Arg Val Leu Leu Asp Asn
 500 505 510
 Gln Thr Val Thr Phe Gln Pro Asp His Glu Asp Gly Gly Gly Gln Glu
 515 520 525
 Thr Phe Asn Ala Thr Gly Val Leu Leu Ser Arg Asn Gly Ser Glu Val
 530 535 540
 Ser Ala Ser Phe Asp Gly Trp Ala Thr Val Ser Val Ile Ala Leu Ser
 545 550 555 560
 Asn Ile Leu His Ala Ser Ala Ser Leu Pro Pro Glu Tyr Gln Asn Arg

Thr	Glu	Gly	Leu	565	Leu	Gly	Val	Trp	Asn	Asn	Asn	Pro	Glu	Asp	Asp	575	Phe
			580						585					590			
Arg	Met	Pro	Asn	Gly	Ser	Thr	Ile	Pro	Pro	Gly	Ser	Pro	Glu	Glu	Met		
		595					600						605				
Leu	Phe	His	Phe	Gly	Met	Thr	Trp	Gln	Ile	Asn	Gly	Thr	Gly	Leu	Leu		
	610					615						620					
Gly	Lys	Arg	Asn	Asp	Gln	Leu	Pro	Ser	Asn	Phe	Thr	Pro	Val	Phe	Tyr		
625					630					635					640		
Ser	Gln	Leu	Gln	Lys	Asn	Ser	Ser	Trp	Ala	Glu	His	Leu	Ile	Ser	Asn		
				645					650					655			
Cys	Asp	Gly	Asp	Ser	Ser	Cys	Ile	Tyr	Asp	Thr	Leu	Ala	Leu	Arg	Asn		
			660					665					670				
Ala	Ser	Ile	Gly	Leu	His	Thr	Arg	Glu	Val	Ser	Lys	Asn	Tyr	Glu	Gln		
		675					680					685					
Ala	Asn	Ala	Thr	Leu	Asn	Gln	Tyr	Pro	Pro	Ser	Ile	Asn	Gly	Gly	Arg		
		690				695					700						
Val	Ile	Glu	Ala	Tyr	Lys	Gly	Gln	Thr	Thr	Leu	Ile	Gln	Tyr	Thr	Ser		
705					710						715				720		
Asn	Ala	Glu	Asp	Ala	Asn	Phe	Thr	Leu	Arg	Asp	Ser	Cys	Thr	Asp	Leu		
				725					730					735			
Glu	Leu	Phe	Glu	Asn	Gly	Thr	Leu	Leu	Trp	Thr	Pro	Lys	Ser	Leu	Glu		
			740					745					750				
Pro	Phe	Thr	Leu	Glu	Ile	Leu	Ala	Arg	Ser	Ala	Lys	Ile	Gly	Leu	Ala		
		755					760					765					
Ser	Ala	Leu	Gln	Pro	Arg	Thr	Val	Val	Cys	His	Cys	Asn	Ala	Glu	Ser		
		770				775					780						
Gln	Cys	Leu	Tyr	Asn	Gln	Thr	Ser	Arg	Val	Gly	Asn	Ser	Ser	Leu	Glu		
785					790						795				800		
Val	Ala	Gly	Cys	Lys	Cys	Asp	Gly	Gly	Thr	Phe	Gly	Arg	Tyr	Cys	Glu		
				805					810					815			
Gly	Ser	Glu	Asp	Ala	Cys	Glu	Glu	Pro	Cys	Phe	Pro	Ser	Val	His	Cys		
			820					825					830				
Val	Pro	Gly	Lys	Gly	Cys	Glu	Ala	Cys	Pro	Pro	Asn	Leu	Thr	Gly	Asp		
		835					840					845					
Gly	Arg	His	Cys	Ala	Ala	Leu	Gly	Ser	Ser	Phe	Leu	Cys	Gln	Asn	Gln		
		850				855					860						
Ser	Cys	Pro	Val	Asn	Tyr	Cys	Tyr	Asn	Gln	Gly	His	Cys	Tyr	Ile	Ser		
865					870					875					880		
Gln	Thr	Leu	Gly	Cys	Gln	Pro	Met	Cys	Thr	Cys	Pro	Pro	Ala	Phe	Thr		

995 1000 1005
 Pro Arg Arg Ser Glu Glu Pro Arg Asn Asp Val Val Phe Gln Pro Ile
 1010 1015 1020
 Ser Gly Glu Asp Val Arg Asp Val Thr Ala Leu Asn Val Ser Thr Leu
 1025 1030 1035 1040
 Lys Ala Tyr Phe Arg Cys Asp Gly Tyr Lys Gly Tyr Asp Leu Val Tyr
 1045 1050 1055
 Ser Pro Gln Ser Gly Phe Thr Cys Val Ser Pro Cys Ser Arg Gly Tyr
 1060 1065 1070
 Cys Asp His Gly Gly Gln Cys Gln His Leu Pro Ser Gly Pro Arg Cys
 1075 1080 1085
 Ser Cys Val Ser Phe Ser Ile Tyr Thr Ala Trp Gly Glu His Cys Glu
 1090 1095 1100
 His Leu Ser Met Lys Leu Asp Ala Phe Phe Gly Ile Phe Phe Gly Ala
 1105 1110 1115 1120
 Leu Gly Gly Leu Leu Leu Gly Val Gly Thr Phe Val Val Leu Arg
 1125 1130 1135
 Phe Trp Gly Cys Ser Gly Ala Arg Phe Ser Tyr Phe Leu Asn Ser Ala
 1140 1145 1150
 Glu Ala Leu Pro
 1155

<210> 1391
 <211> 481
 <212> DNA
 <213> Homo sapiens

<400> 1391
 gtcgacggca tcgaggtcca tgacaaggca accgacctca accgcctgcg ccagaagatc
 60
 ggcattgtgt tccagcagtg gaacgccttc ccgcacctca ccgtgctgga aaacgtgatg
 120
 ctggcgccgc gcaaggtgct cggtaaaagc aagcagaagg ccgaggagct ggcggtccgg
 180
 caactgaccc acgtgggcct gagcgacaag ctcaagacct ttcccgcana gctttccggc
 240
 ggccagcaac agcgcatggc gattgcccgg gccctggcca tgtcgccgga ctacatgctg
 300
 ttcgacgaag ccacctcggc ccttgatccg cagttggtgg gcgaggtgct ggacaccatg
 360
 cgcattgctg ccgaagacgg catgaccatg gtcctggtga cccatgaaat ccgctttgcc
 420
 cgcatgtgt ccatcgcggt ggcgttcttt cgcaacggcc tggtgcacga gatcggcgcg
 480
 c
 481

<210> 1392
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 1392
 Val Asp Gly Ile Glu Val His Asp Lys Ala Thr Asp Leu Asn Arg Leu

1		5		10		15									
Arg	Gln	Lys	Ile	Gly	Ile	Val	Phe	Gln	Gln	Trp	Asn	Ala	Phe	Pro	His
		20						25					30		
Leu	Thr	Val	Leu	Glu	Asn	Val	Met	Leu	Ala	Pro	Arg	Lys	Val	Leu	Gly
		35						40				45			
Lys	Ser	Lys	Gln	Lys	Ala	Glu	Glu	Leu	Ala	Val	Arg	Gln	Leu	Thr	His
		50					55				60				
Val	Gly	Leu	Ser	Asp	Lys	Leu	Lys	Thr	Phe	Pro	Ala	Xaa	Leu	Ser	Gly
65					70					75				80	
Gly	Gln	Gln	Gln	Arg	Met	Ala	Ile	Ala	Arg	Ala	Leu	Ala	Met	Ser	Pro
				85					90					95	
Asp	Tyr	Met	Leu	Phe	Asp	Glu	Ala	Thr	Ser	Ala	Leu	Asp	Pro	Gln	Leu
		100						105					110		
Val	Gly	Glu	Val	Leu	Asp	Thr	Met	Arg	Met	Leu	Ala	Glu	Asp	Gly	Met
		115					120					125			
Thr	Met	Val	Leu	Val	Thr	His	Glu	Ile	Arg	Phe	Ala	Arg	Asp	Val	Ser
		130				135					140				
Asp	Arg	Val	Ala	Phe	Phe	Arg	Asn	Gly	Leu	Val	His	Glu	Ile	Gly	Ala
145					150					155				160	

<210> 1393

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1393

cggccgccat cggcgcgggc cttgtgggat atggccatta ctgaggtgct ggccggctac
60
tacgaacccg acgaacacgg acaccgcaag cccgagtcgt tgtacggcgc ggtcaagatg
120
tgggcccttc tgcgccgtca gggcatcagg tggcccgtg cancggtgga gcgcctcatg
180
cgggacaacc ggtggcgtgg ggtgacccgc cgtaagaagg ttncgcacca ccacgctga
240
cccggctgcc gggcgagccc cggatctggt ggaccgccag ttccgcgtcg aggcgcccac
300
caagttgct
309

<210> 1394

<211> 79

<212> PRT

<213> Homo sapiens

<400> 1394

Arg	Pro	Pro	Ser	Ala	Arg	Ala	Leu	Trp	Asp	Met	Ala	Ile	Thr	Glu	Val
1				5				10					15		
Leu	Ala	Gly	Tyr	Tyr	Glu	Pro	Asp	Glu	His	Gly	His	Arg	Lys	Pro	Glu
		20					25					30			
Ser	Leu	Tyr	Gly	Ala	Val	Lys	Met	Trp	Ala	Leu	Leu	Arg	Arg	Gln	Gly
		35					40					45			
Ile	Arg	Trp	Pro	Ala	Ala	Xaa	Val	Glu	Arg	Leu	Met	Arg	Asp	Asn	Arg
		50				55					60				
Trp	Arg	Gly	Val	Thr	Arg	Arg	Lys	Lys	Val	Xaa	His	His	His	Arg	

65

70

75

<210> 1395

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1395

accggtgggg ttcgtggtgg cctggttact ttttggcgcg agcgggtgtg tgtgggccgt
60
tatgacggta gtcgtgggcg aaacggtgct tgctgttggt cgccgtcaac gtcgaagagc
120
ccagattctt aaaggcggtc gcgatgttgc ccgggcgaca agggccttgg ctggacgggt
180
gtcggtaggg gagatcccct cagttgcact agagcacgtg gccgatgacg tggaggtatt
240
ggctcaggct aggcgggctc atgcagtggg cggaagcgtt tccgacgccc tcattgccac
300
ctcccggaac ccagggatgg ctggtctggt gccactagcc cacgcgt
347

<210> 1396

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1396

Met	Thr	Val	Val	Val	Gly	Glu	Thr	Val	Leu	Val	Val	Val	Arg	Arg	Gln
1			5					10				15			
Arg	Arg	Arg	Ala	Gln	Ile	Leu	Lys	Gly	Gly	Arg	Asp	Val	Ala	Arg	Ala
			20					25				30			
Thr	Arg	Ala	Leu	Ala	Gly	Arg	Val	Ser	Val	Gly	Glu	Ile	Pro	Ser	Val
			35				40					45			
Ala	Leu	Glu	His	Val	Ala	Asp	Asp	Val	Glu	Val	Leu	Ala	Gln	Ala	Arg
			50				55				60				
Arg	Ala	His	Ala	Val	Gly	Gly	Ser	Val	Ser	Asp	Ala	Leu	Ile	Ala	Thr
65					70				75					80	
Ser	Arg	Gln	Pro	Gly	Met	Ala	Gly	Leu	Val	Pro	Leu	Ala	His	Ala	
			85					90						95	

<210> 1397

<211> 308

<212> DNA

<213> Homo sapiens

<400> 1397

caattgcgcg gggttactgca ggcgaagatg cagatgatgt cggacaccaa tttcctcgac
60
ctggcccgcg tcgcgattgc cgccactatc cattctccgg aacgcgcgca agacatgggt
120
aaccgcttga gcaaacgcga agaaggcttc acgcaatggg tacgtgccgc acaggacgat
180
ggtcgactgt cctgcagcga cccggcgctt gctgcccacc agatacaaag cctgctcaag
240

gcgttcgcct tttggccgca aatcacctg ggccagccgg tgctggatgc cgccagccag
 300
 gccaacgt
 308

<210> 1398
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 1398
 Met Gln Met Met Ser Asp Thr Asn Phe Leu Asp Leu Ala Arg Val Ala
 1 5 10 15
 Ile Ala Ala Thr Ile His Ser Pro Glu Arg Ala Gln Asp Met Val Asn
 20 25 30
 Arg Leu Ser Lys Arg Glu Glu Gly Phe Thr Gln Trp Val Arg Ala Ala
 35 40 45
 Gln Asp Asp Gly Arg Leu Ser Cys Ser Asp Pro Ala Phe Ala Ala His
 50 55 60
 Gln Ile Gln Ser Leu Leu Lys Ala Phe Ala Phe Trp Pro Gln Ile Thr
 65 70 75 80
 Leu Gly Gln Pro Val Leu Asp Ala Ala Ser Gln Ala Asn
 85 90

<210> 1399
 <211> 539
 <212> DNA
 <213> Homo sapiens

<400> 1399
 gctagctaac atttatTTTT gtttttatta ttgttatcta gtggtaaaaa tttcttaagc
 60
 aatgaactga agtctagatt tttgagatgt agtcctttac tgattataaa gcaaatagcct
 120
 ttagatattt taacttcatt agtactatct gtagtaggag gctgatttta ctaaaattag
 180
 ataattatat acatctgttc ctattccttt ggtaggacct ttaagaaagt catgctgaat
 240
 ctgagaatgc caggacattt cacgtggtat gaatgtagga tattcattta cacatcgctg
 300
 cacagacagc ctctatataa cccaccctgt tgggggtattg aattttttct tttcccgccc
 360
 tacttttaaa tcttgatcatg taatttcaac acataatttg tggcacttta gtttttttac
 420
 cctttatagt ttaataactt atacatgtac atgcttaaaa tgtcaaacaa tacaatggg
 480
 aacaaagaaa attgcttcac catctgtgaa cccctccttt ttagtcccc ttcacgcgt
 539

<210> 1400
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 1400

Met Asn Val Gly Tyr Ser Phe Thr His Arg Cys Thr Asp Ser Leu Tyr
 1 5 10 15
 Ile Thr His Pro Val Gly Val Leu Asn Phe Phe Phe Ser Arg Pro Thr
 20 25 30
 Phe Lys Ser Cys His Val Ile Ser Thr His Asn Leu Trp His Phe Ser
 35 40 45
 Phe Phe Thr Leu Tyr Ser Leu Ile Thr Tyr Thr Cys Thr Cys Leu Lys
 50 55 60
 Cys Gln Thr Ile Gln Met Gly Thr Lys Lys Ile Ala Ser Pro Ser Val
 65 70 75 80
 Asn Pro Ser Phe Cys Ser Pro Leu His Ala
 85 90

<210> 1401

<211> 653

<212> DNA

<213> Homo sapiens

<400> 1401

ttcgaggggt cacttggact caagcttcgc gaagtccggg acctcggacg accgattttt
 60
 cggctgtgca ccgtcaccgc aaggctggcg tgggttnnct catcaccggc gcggcgatgg
 120
 ncattgggggt ttgatggccg cgtttccctg ctgctggggc cgatcctcat cgtcaccggc
 180
 ccaacggtga ttaaccgat cctgcgtcag ttgcgtccta cccggcgagt gagggtctctg
 240
 ttgaggtggg aaggaatcgt cgtcgatccg ctccggcgcca tcctggcatt actggtgtat
 300
 caggccataa ccagcatcga ccgatcttcc atcggacaag gcgtcttgaa tctggggctc
 360
 accctattgg tcgggctgct cttecgctggc cccatcgggt ggatcgtcac cgcgatgatg
 420
 aaacggcacc tcatcccgga cttcctacaa ggcgtgattt tcgttgggggt cgccggttga
 480
 acgtgtgttg gcgctaactg cattcgggag gaatcgggcc tggtcgccgt tacgatgctc
 540
 ggcatctacc tggcgaacca gcgcaacctc gagcttgagc ccgtcatcga gttcaaggaa
 600
 cacctgcagg tgctcctcgt tggcgtccta ttcatcatgc ttgcaggacg cgt
 653

<210> 1402

<211> 217

<212> PRT

<213> Homo sapiens

<400> 1402

Phe Glu Gly Ser Leu Gly Leu Lys Leu Arg Glu Val Arg Asp Leu Gly
 1 5 10 15
 Arg Pro Ile Phe Arg Leu Cys Thr Val Thr Ala Arg Leu Ala Trp Val
 20 25 30
 Xaa Ser Ser Pro Ala Arg Arg Trp Xaa Leu Gly Phe Asp Gly Arg Val

35 40 45
 Ser Leu Leu Leu Gly Ala Ile Leu Ile Val Thr Gly Pro Thr Val Ile
 50 55 60
 Asn Pro Ile Leu Arg Gln Leu Arg Pro Thr Arg Arg Val Ser Ala Leu
 65 70 75 80
 Leu Arg Trp Glu Gly Ile Val Val Asp Pro Leu Gly Ala Ile Leu Ala
 85 90 95
 Leu Leu Val Tyr Gln Ala Ile Thr Ser Ile Asp Arg Ser Ser Ile Gly
 100 105 110
 Gln Gly Val Leu Asn Leu Gly Leu Thr Leu Leu Val Gly Leu Leu Phe
 115 120 125
 Ala Gly Pro Ile Gly Trp Ile Val Thr Ala Met Met Lys Arg His Leu
 130 135 140
 Ile Pro Asp Phe Leu Gln Gly Val Ile Phe Val Gly Val Ala Val Gly
 145 150 155 160
 Thr Cys Val Gly Ala Asn Val Ile Arg Glu Glu Ser Gly Leu Val Ala
 165 170 175
 Val Thr Met Leu Gly Ile Tyr Leu Ala Asn Gln Arg Asn Leu Glu Leu
 180 185 190
 Glu Pro Val Ile Glu Phe Lys Glu His Leu Gln Val Leu Leu Val Gly
 195 200 205
 Val Leu Phe Ile Met Leu Ala Gly Arg
 210 215

<210> 1403

<211> 393

<212> DNA

<213> Homo sapiens

<400> 1403

aagctttgca gtttcttggt atccaaatcc aggcgttctt ggtctttttc cacaacagtg
 60
 tgtgccacat gaaatggaac acgggcaaac atatctgac caggaaacat tagccaagta
 120
 tgttccttgg ggtcatgac tccacaagtt ggcatatct cctttatcag ctgcttgcca
 180
 gagcttcctt ccattctctt cattatgacc tcaaagggag atggcacgct agtcttgga
 240
 gtcctagctt gtttccgaag ggctgtcaga gcctccctgt taccatttct tatcttatca
 300
 ttttccacca actgatgtct agccagaaga actttttctg catcagtctc aatatcaacc
 360
 agagcctctt gaagctgctt catgttgga tcc
 393

<210> 1404

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1404

Met Lys Gln Leu Gln Glu Ala Leu Val Asp Ile Glu Thr Asp Ala Glu
 1 5 10 15
 Lys Val Leu Leu Ala Arg His Gln Leu Val Glu Asn Asp Lys Ile Arg


```

      20      25      30
Asn Gly Asn Arg Glu Ala Leu Thr Ala Leu Arg Lys Gln Ala Arg Thr
  35      40      45
Ser Lys Thr Ser Val Pro Ser Pro Phe Glu Val Ile Met Lys Glu Met
  50      55      60
Glu Gly Ser Ser Gly Lys Gln Leu Ile Lys Glu Ile Cys Pro Thr Cys
  65      70      75      80
Gly Asp His Asp Pro Lys Glu His Thr Trp Leu Met Phe Pro Gly Ser
      85      90      95
Asp Met Phe Ala Arg Val Pro Phe His Val Ala His Thr Val Val Glu
      100      105      110
Lys Asp Gln Glu Arg Leu Asp Leu Asp Thr Lys Lys Leu Gln Ser
      115      120      125

```

<210> 1405

<211> 421

<212> DNA

<213> Homo sapiens

<400> 1405

```

nnccgactgc acaaggccct gggcatcgaa ctgcccggcg cactgcaggt catcgtaaaa
60
ggcgaaacca gcctgcaatg gctcggcccg gacgaatggc tgctgatcgt gccagcgggt
120
gaagagttcg ccgccgagca aaacctgcgt gccgccctgg gcgagttgca tatccaggtc
180
gtcaacgtca gcggtggcca gcagatcctc gaactcagcg gcccgaacgt gcgcgacgtg
240
ctgatgaaat ccaccagcta cgacgtacac cccaacaact tcccgggtggg caaggcgggtg
300
ggcacgggtg tcgccaagtc gcaactgggtg atccgccata ccgccgaaga cacctgggaa
360
ctgctgatcc gtcgcagctt ctcggattac tgggtggtgt ggttgcagga cgcggtgca
420
t
421

```

<210> 1406

<211> 140

<212> PRT

<213> Homo sapiens

<400> 1406

```

Xaa Arg Leu His Lys Ala Leu Gly Ile Glu Leu Pro Gly Ala Leu Gln
  1      5      10      15
Val Ile Val Lys Gly Glu Thr Ser Leu Gln Trp Leu Gly Pro Asp Glu
      20      25      30
Trp Leu Leu Ile Val Pro Ser Gly Glu Glu Phe Ala Ala Glu Gln Asn
      35      40      45
Leu Arg Ala Ala Leu Gly Glu Leu His Ile Gln Val Val Asn Val Ser
      50      55      60
Gly Gly Gln Gln Ile Leu Glu Leu Ser Gly Pro Asn Val Arg Asp Val
      65      70      75      80
Leu Met Lys Ser Thr Ser Tyr Asp Val His Pro Asn Asn Phe Pro Val

```



```
<210> 1408
<211> 335
<212> PRT
<213> Homo sapiens
```


<400> 1408
Xaa Gly Arg Glu Lys Leu Glu Leu Val Leu Ser Asn Leu Gln Ala Asp
1 5 10 15
Val Leu Glu Leu Leu Glu Phe Val Tyr Thr Gly Ser Leu Val Ile
20 25 30
Asp Ser Ala Asn Ala Lys Thr Leu Leu Glu Ala Ala Ser Lys Phe Gln
35 40 45
Phe His Thr Phe Cys Lys Val Cys Val Ser Phe Leu Glu Lys Gln Leu
50 55 60
Thr Ala Ser Asn Cys Leu Gly Val Ala Ala Met Ala Glu Ala Met Gln
65 70 75 80
Cys Ser Glu Leu Tyr His Xaa Ala Lys Ala Phe Ala Leu Gln Ile Phe
85 90 95
Pro Glu Val Ala Ala Gln Glu Glu Ile Leu Ser Ile Ser Lys Asp Asp
100 105 110
Phe Ile Ala Tyr Val Ser Asn Asp Ser Leu Asn Thr Lys Ala Glu Glu
115 120 125
Leu Val Tyr Glu Thr Val Ile Lys Trp Ile Lys Lys Asp Pro Ala Thr
130 135 140
Arg Thr Gln Tyr Ala Ala Glu Leu Leu Ala Val Val Arg Leu Pro Phe
145 150 155 160
Ile His Pro Ser Tyr Leu Leu Asn Val Val Asp Asn Glu Glu Leu Ile
165 170 175
Lys Ser Ser Glu Ala Cys Arg Asp Leu Val Asn Glu Ala Lys Arg Tyr
180 185 190
His Met Leu Pro His Ala Arg Gln Glu Met Gln Thr Pro Arg Thr Arg
195 200 205
Pro Arg Leu Ser Ala Gly Val Ala Glu Val Ile Val Leu Val Gly Gly
210 215 220
Arg Gln Met Val Gly Met Thr Gln Arg Ser Leu Val Ala Val Thr Cys
225 230 235 240
Trp Asn Pro Gln Asn Asn Lys Trp Tyr Pro Leu Ala Ser Val Pro Phe
245 250 255
Leu Gly Pro Gly Phe Phe Ser Val Val Ser Ala Gly Ala Asn Ile Tyr
260 265 270
Leu Ser Gly Gly Met Glu Ser Gly Val Pro Leu Ala Asp Val Trp Cys
275 280 285
Tyr Met Ser Leu Leu Asp Asn Trp Asn Leu Val Ser Arg Met Pro Val
290 295 300
Pro Arg Cys Arg Pro His Ser Leu Val Tyr Asp Gly Lys Ile Tyr Thr
305 310 315 320
Leu Gly Gly Leu Gly Val Ala Gly Asn Val Asp His Val Glu Arg
325 330 335

<210> 1409

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1409

nnnatgaagt tcttggtttt ttcagaaaaa cgcgcttttt gctatgctgg ccgccccgcg
60
gcacgagata gcaccatgca actgatcgat atcggcgtca acctgaccaa cagcagtttc
120

cacgaccaac aggccgcaat cgtcgcgcgc gcgctggagg ccggcggttac gcaaattgctg
 180
 ctgacaggca ccagcctggc ggtcagcgaa caagccctgg aactgtgcca tcaactggat
 240
 gcaagcggcg cccacctggt cgccacggcc ggcgtgcac
 279

<210> 1410

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1410

Xaa	Met	Lys	Phe	Leu	Val	Phe	Ser	Glu	Lys	Arg	Ala	Phe	Cys	Tyr	Ala
1				5					10				15		
Gly	Arg	Pro	Ala	Ala	Arg	Asp	Ser	Thr	Met	Gln	Leu	Ile	Asp	Ile	Gly
			20					25				30			
Val	Asn	Leu	Thr	Asn	Ser	Ser	Phe	His	Asp	Gln	Gln	Ala	Ala	Ile	Val
		35					40					45			
Glu	Arg	Ala	Leu	Glu	Ala	Gly	Val	Thr	Gln	Met	Leu	Leu	Thr	Gly	Thr
	50					55					60				
Ser	Leu	Ala	Val	Ser	Glu	Gln	Ala	Leu	Glu	Leu	Cys	His	Gln	Leu	Asp
65				70					75					80	
Ala	Ser	Gly	Ala	His	Leu	Phe	Ala	Thr	Ala	Gly	Val	His			
				85					90						

<210> 1411

<211> 321

<212> DNA

<213> Homo sapiens

<400> 1411

nnncgtattt caggaatgaa gaacgaacct gaatggatgc ttgaatggcg cttgagtgca
 60
 tttcgtgaat ggtagaaat ggaagagcct agctgggctc atgtcgatta ccctaaaatt
 120
 gattttcaat ctatttctta ctattccgcg ccaaaaagca tgaaggataa gcctaagtgc
 180
 ttagacgaag tcgatcctga attgttacgt acttatgaaa aactgggcat tcctctcata
 240
 gaacagcaaa tgcttgctgg tatcgccgta gatgctgtct ttgactcagt gtctgtcggt
 300
 actacttttc gtcaaaaagct t
 321

<210> 1412

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1412

Xaa	Arg	Ile	Ser	Gly	Met	Lys	Asn	Glu	Pro	Glu	Trp	Met	Leu	Glu	Trp
1					5				10				15		
Arg	Leu	Ser	Ala	Phe	Arg	Glu	Trp	Leu	Glu	Met	Glu	Glu	Pro	Ser	Trp


```

      20      25      30
Ala His Val Asp Tyr Pro Lys Ile Asp Phe Gln Ser Ile Ser Tyr Tyr
      35      40      45
Ser Ala Pro Lys Ser Met Lys Asp Lys Pro Lys Ser Leu Asp Glu Val
      50      55      60
Asp Pro Glu Leu Leu Arg Thr Tyr Glu Lys Leu Gly Ile Pro Leu Ile
      65      70      75      80
Glu Gln Gln Met Leu Ala Gly Ile Ala Val Asp Ala Val Phe Asp Ser
      85      90      95
Val Ser Val Val Thr Thr Phe Arg Gln Lys Leu
      100      105

```

<210> 1413

<211> 385

<212> DNA

<213> Homo sapiens

<400> 1413

```

atgacccatg acgtcagcga agccgtggcg attgccgacc gggatgatcct gatcgaagac
60
ggcgaaatcg gcctcgacct gatcatcgac ctgccacgtc cgcgtgcccg tggttcacac
120
cgcttgcccg cggttgaagc cgaagtata aaccgtgtgc tgcataacc cngcacgaag
180
ccggaacccg aacatgttaa accgctgcct acgaaattgc gttggggtca ataactcata
240
gaggaacacc atcatgacta taaaagccat caacgtgcgt aaccagttaa aaggcaccat
300
caaggaaatc gtagtcggca acgtgctctc ggaaatcgac gtgcagaccg cctccgggat
360
cgtcacttct gtgatcacta cgcgt
385

```

<210> 1414

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1414

```

Met Thr His Asp Val Ser Glu Ala Val Ala Ile Ala Asp Arg Val Ile
1      5      10      15
Leu Ile Glu Asp Gly Glu Ile Gly Leu Asp Leu Ile Ile Asp Leu Pro
20      25      30
Arg Pro Arg Ala Arg Gly Ser His Arg Leu Ala Ala Leu Glu Ala Glu
35      40      45
Val Ile Asn Arg Val Leu Ser
50      55

```

<210> 1415

<211> 420

<212> DNA

<213> Homo sapiens

<400> 1415

acgcgtgcag gcaaacatta atatgagtta acaccacaca ggatgagact gtttgtacct
 60
 gtaactgtcc ttgtcatctg tcttgcagat ttagaagagg aatcagaaag ctgggacaac
 120
 tctgaggctg aagaggagga gaaagcccct gtgttgccag agagtacaga agggcgggag
 180
 ctgaccacagg gcccggcaga gtccctctct ctctcaggct gtgggagctg gcagccccgg
 240
 aagctgccag tcttcaagtc cctccggcac atgaggcagg tcttgggtgc cccttctttc
 300
 cgcacgtctg cctggcacgt tctcatgggg aaccagggtga tctggaaaag cagagacgtg
 360
 gacctcgtcc agtcagcttt tgaagtactt cgggtgagaa catcttttcc ttaggtgtgc
 420

<210> 1416

<211> 123

<212> PRT

<213> Homo sapiens

<400> 1416

Met	Arg	Leu	Phe	Val	Pro	Val	Thr	Val	Leu	Val	Ile	Cys	Leu	Ala	Asp
1				5					10					15	
Leu	Glu	Glu	Glu	Ser	Glu	Ser	Trp	Asp	Asn	Ser	Glu	Ala	Glu	Glu	Glu
			20					25					30		
Glu	Lys	Ala	Pro	Val	Leu	Pro	Glu	Ser	Thr	Glu	Gly	Arg	Glu	Leu	Thr
		35					40					45			
Gln	Gly	Pro	Ala	Glu	Ser	Ser	Ser	Leu	Ser	Gly	Cys	Gly	Ser	Trp	Gln
	50					55					60				
Pro	Arg	Lys	Leu	Pro	Val	Phe	Lys	Ser	Leu	Arg	His	Met	Arg	Gln	Val
65					70					75				80	
Leu	Gly	Ala	Pro	Ser	Phe	Arg	Met	Leu	Ala	Trp	His	Val	Leu	Met	Gly
			85						90					95	
Asn	Gln	Val	Ile	Trp	Lys	Ser	Arg	Asp	Val	Asp	Leu	Val	Gln	Ser	Ala
		100					105						110		
Phe	Glu	Val	Leu	Arg	Val	Arg	Thr	Ser	Phe	Pro					
	115						120								

<210> 1417

<211> 5058

<212> DNA

<213> Homo sapiens

<400> 1417

nngtacagcc ccaaggtcgc tccctctggg ccctttcttc ccattcttc ccagcagccc
 60
 aaagctctgg tgggacaggg gcagccccctg gggagggagg agaggacca ggaacccggc
 120
 taggaggggtg gccaccccat ttccagtgtg acctgttccc attcccccat gtctctctcc
 180
 atccctcccg ccactcagct caggctgatg agaagcagag caacgggtgt atcgtgtgtt
 240
 tctttcctgg tgggtagtg ggggtggggct gaggagagaa aagggtgatt agcgtggggc
 300

cccgccctct tttgtectct tcccagggtc cctggccctc tcggagaaac gcacttggtt
360
cgggccagcc gcctgagggg acgggctcac gtctgtctct cacactgcag ctgtggggcc
420
gtggagcttc cccagggagc cagggggact tttccgcag ccatgaaggg ggcacgtgg
480
aggaggggtcc cctgggtgtc cctgagctgc ctgtgtctct gcctccttc gcattgtggtc
540
ccaggaacca cagaggacac attaataact ggaagtaaaa ctctgcccc agtcacctca
600
acaggctcaa caacagcgac actagaggga caatcaactg cagcttcttc aaggacctct
660
aatcaggaca tatcagcttc atctcagaac caccagacta agagcacgga gaccaccagc
720
aaagctcaaa ccgacacctc cagcgagatg atgacatcaa ctcttttttc ttccccaagt
780
gtacacaatg tgatggagac tgttacgcag gagacagctc ctccagatga aatgaccaca
840
tcatttcctt ccagtgtcac caacacactc atgatgacat caaagactat aacaatgaca
900
acctccacag actccactct tggaaacaca gaagagacat caacagcagg aactgaaagt
960
tctaccccg tgacctcagc agtctcaata acagctggac aggaaggaca atcacgaaaa
1020
acttcctgga ggacctctat ccaagacaca tcagcttctt ctcagaacca ctggactcgg
1080
agcacgcaga ccaccaggga atctcaaacc agcaccctaa cacacagaac cacttcaact
1140
ccttctttct ctccaagtgt acacaatgtg acagggaactg tttctcagaa gacatctcct
1200
tcaggtgaaa cagctacctc atccctctgt agtgtcacia acacatccat gatgacatca
1260
gagaagataa cagtgacaac ctccacaggc tccactcttg gaaaccagg ggagacatca
1320
tcagtacctg ttactggaag tcttatgcc a gtcacctcag cagccttagt aacagttgat
1380
ccagaaggac aatcaccagc aactttctca aggacttcta ctcaggacac aacagctttt
1440
tctaagaacc accagactca gagcgtggag accaccagag tatctcaa at caacacctc
1500
aacacctca caccggttac aacatcaact gttttatcct caccaagtgg attcaacca
1560
agtggaaacag tttctcagga gacattcctt tctggtgaaa caaccatctc atcccccttc
1620
agtgtcagca atacattcct ggtaacatca aagggtgttca gaatgccaat ctccagagac
1680
tctactcttg gaaacacaga ggagacatca ctatctgtaa gtggaacctt ttctgcaatc
1740
acttccaaag tttcaacct atggtggtca gacactctgt caacagcact ctccccagt
1800
tctttacctc caaaaatatc cacagctttc cacaccagc agagtgaagg tgcagagacc
1860
acaggacggc ctcatgagag gagctcattc tctccagggtg tgtctcaaga aatatttact
1920

ctacatgaaa caacaacatg gccttctctca ttctccagca aaggccacac aacttggtca
1980
caaacagaac tgccctcaac atcaacaggt gctgccacta ggcttgtcac aggaaatcca
2040
tctacagggg cagctggcac tattccaagg gtccctctta aggtctcagc aataggggaa
2100
ccaggagagc ccaccacata ctctctccac agcacaactc tcccaaaaac aacaggggca
2160
ggcgcccaga cacaatggac acaagaaacg gggaccactg gagaggctct tctcagcagc
2220
ccaagctaca gtgtgactca gatgataaaa acggccacat ccccatcttc ttcacctatg
2280
ctggatagac acacatcaca acaaattaca acggcaccat caacaaatca ttcaacaata
2340
cattccacaa gcacctctcc tcaggaatca ccagctgttt cccaaagggg tcacactcaa
2400
gccccgcaga ccacacaaga atcacaaacc acgaggtccg tctcccccat gactgacacc
2460
aagacagtca ccaccccagg ttcttctctc acagccagtg ggcaactcgc ctcagaaatt
2520
gttctctcagg acgcaccac cataagtga gcaacaacct ttgcccagc tcccaccggg
2580
gatggtcaca caaccaggc cccgaccaca gcaactgcagg caacaccagc cagccatgat
2640
gccacctgg ggccctcagg aggcacgtca ctttccaaaa caggtgccct tactctggcc
2700
aactctgtag tgtcaacacc agggggccca gaaggacaat ggacatcagc ctctgccagc
2760
acctcacctg acacagcagc agccatgacc catacccacc aggtgagag cacagaggcc
2820
tctggacaaa cacagaccag cgaaccggcc tcctcagggt cacgaaccac ctcagcgggc
2880
acagctaccc cttctctcct cggggcgagt ggcacaacac cttcaggaag cgaaggaata
2940
tcacacctag gagagacgac aaggttttca tcaaaccctt ccagggacag tcacacaacc
3000
cagtcaacaa ccgaattgct gtccgcctca gccagtcatg gtgccatccc agtaagcaca
3060
ggaatggcgt cttcgatcgt ccccgccacc ttctatccca cctctctga ggcctccact
3120
gcaggagagc cgacaggaca gtcaagccca acttctccca gtgcctctcc tcaggagaca
3180
gccgccatct cccggatggc ccagactcag aggacaagaa ccagcagagg gtctgacact
3240
atcagcctgg cgtcccaggc aaccgacacc ttctcaacag tcccaccac acctccatcg
3300
atcacatcca gtgggcttac atctccacaa acccagaccc acactctgtc accttcagga
3360
tctggtaaaa ccttcaccac ggccctcctc agcaacgcca cccctcttcc tgtcacctac
3420
gcttctctcg catccacagg tcacaccacc cctcttcatg tcaccgatgc ttcctcagta
3480
tccacaggtc acgcccacc tcttctgtc accagccctt cctcagtatc cacaggtgac
3540

accacgctc ttctgtcac tagcccttcc tcagcatcct caggtcacgc cacctctctt
3600
cctgtcacg acgcttctc actctccaca ggtcacgcca cctctcttca tgtcacgac
3660
gtttctcag tatccacagg tcacgccacc cttcttcatg tcaccgacgc ttctcagca
3720
tccacaggcc acaccacctc ttttctgtc accgacgctt cctcagtatc cacagggtgac
3780
accacccctc ttctgtcac cgacacttcc tcagcatcca caggtgacac caccctctt
3840
catgtcacg acgcttctc agtatccaca ggtcacgcca cccctcttca tgtcaccagc
3900
ctttctcag tatccacagg tgacaccacg cctcttctg tctactagccc ttctcagca
3960
tctcaggtc acgccacctc ttttctgtc accgacgctt cctcagtgtc cacagggtcac
4020
gccactctc ttctgtcac catcccttcc tcagcatcct ctggtgacgc cacctctctt
4080
cctgtcacca gctttctc actctccaca ggtcacgcca cccctcttcc tgtcaccagc
4140
ctttctcag catccacagg tcacgccacc cctcttctg tcaccgacac ttctcagta
4200
tctacaggc acgccacctc ttttctgtc accgacgctt cctcagtatc cacagggtcac
4260
gccacccctc tctatgtcac cgatgcttcc tcagtatcca caggtgacac caccctctt
4320
cctgtcacca gcccttctc agcatccaca ggtgacacca cccctcttcc tgtcacgac
4380
acttctcag tatccacagg cgacaccacc cctcttctg tcaccgacac ttctcagta
4440
tccacaagcc acgccacctc ttttctgtc accgacactt cctcagtatc cacaagccac
4500
gccactctc ttctgtcac cgacccttcc tcagcatcca caggtgacac caccctctt
4560
cctgtcacg acatttctc agtatccaca ggtcacgcca cctctcttcc tgtcaccgac
4620
acttctcag catccacagg tgacaccacc tcttctctg tctactgacac ttctcagca
4680
tccacaggc acgccacccc ttttctgtc accgacactt cctcagcatc cacagggtcac
4740
gccacccctc ttctgtcac cgacacttcc tcagcatcca caggtcacac caccctctt
4800
catgtcacca gcccttctc agcatccaca ggtcacgcca cccctcttcc tgtcaccagc
4860
ccttctcag catccacaag tcacgccacc tcttctctg tcaccgacac ttctcagca
4920
tccacaggc acgccacccc ttttctgtc accgacactt cctcagcatc cacagggtcac
4980
gccacccctc ttctgtcac cgacacttcc tcagcatcca caggtcacgc caccctctt
5040
cctgtcacg acatttcc
5058

<210> 1418

<211> 1532

<212> PRT

<213> Homo sapiens

<400> 1418

```

Met Lys Gly Ala Arg Trp Arg Arg Val Pro Trp Val Ser Leu Ser Cys
1      5      10      15
Leu Cys Leu Cys Leu Leu Pro His Val Val Pro Gly Thr Thr Glu Asp
20      25      30
Thr Leu Ile Thr Gly Ser Lys Thr Pro Ala Pro Val Thr Ser Thr Gly
35      40      45
Ser Thr Thr Ala Thr Leu Glu Gly Gln Ser Thr Ala Ala Ser Ser Arg
50      55      60
Thr Ser Asn Gln Asp Ile Ser Ala Ser Ser Gln Asn His Gln Thr Lys
65      70      75      80
Ser Thr Glu Thr Thr Ser Lys Ala Gln Thr Asp Thr Leu Thr Gln Met
85      90      95
Met Thr Ser Thr Leu Phe Ser Ser Pro Ser Val His Asn Val Met Glu
100     105     110
Thr Val Thr Gln Glu Thr Ala Pro Pro Asp Glu Met Thr Thr Ser Phe
115     120     125
Pro Ser Ser Val Thr Asn Thr Leu Met Met Thr Ser Lys Thr Ile Thr
130     135     140
Met Thr Thr Ser Thr Asp Ser Thr Leu Gly Asn Thr Glu Glu Thr Ser
145     150     155     160
Thr Ala Gly Thr Glu Ser Ser Thr Pro Val Thr Ser Ala Val Ser Ile
165     170     175
Thr Ala Gly Gln Glu Gly Gln Ser Arg Lys Thr Ser Trp Arg Thr Ser
180     185     190
Ile Gln Asp Thr Ser Ala Ser Ser Gln Asn His Trp Thr Arg Ser Thr
195     200     205
Gln Thr Thr Arg Glu Ser Gln Thr Ser Thr Leu Thr His Arg Thr Thr
210     215     220
Ser Thr Pro Ser Phe Ser Pro Ser Val His Asn Val Thr Gly Thr Val
225     230     235     240
Ser Gln Lys Thr Ser Pro Ser Gly Glu Thr Ala Thr Ser Ser Leu Cys
245     250     255
Ser Val Thr Asn Thr Ser Met Met Thr Ser Glu Lys Ile Thr Val Thr
260     265     270
Thr Ser Thr Gly Ser Thr Leu Gly Asn Pro Gly Glu Thr Ser Ser Val
275     280     285
Pro Val Thr Gly Ser Leu Met Pro Val Thr Ser Ala Ala Leu Val Thr
290     295     300
Val Asp Pro Glu Gly Gln Ser Pro Ala Thr Phe Ser Arg Thr Ser Thr
305     310     315     320
Gln Asp Thr Thr Ala Phe Ser Lys Asn His Gln Thr Gln Ser Val Glu
325     330     335
Thr Thr Arg Val Ser Gln Ile Asn Thr Leu Asn Thr Leu Thr Pro Val
340     345     350
Thr Thr Ser Thr Val Leu Ser Ser Pro Ser Gly Phe Asn Pro Ser Gly
355     360     365
Thr Val Ser Gln Glu Thr Phe Pro Ser Gly Glu Thr Thr Ile Ser Ser
370     375     380
Pro Ser Ser Val Ser Asn Thr Phe Leu Val Thr Ser Lys Val Phe Arg

```


385 390 395 400
 Met Pro Ile Ser Arg Asp Ser Thr Leu Gly Asn Thr Glu Glu Thr Ser
 405 410 415
 Leu Ser Val Ser Gly Thr Ile Ser Ala Ile Thr Ser Lys Val Ser Thr
 420 425 430
 Ile Trp Trp Ser Asp Thr Leu Ser Thr Ala Leu Ser Pro Ser Ser Leu
 435 440 445
 Pro Pro Lys Ile Ser Thr Ala Phe His Thr Gln Gln Ser Glu Gly Ala
 450 455 460
 Glu Thr Thr Gly Arg Pro His Glu Arg Ser Ser Phe Ser Pro Gly Val
 465 470 475 480
 Ser Gln Glu Ile Phe Thr Leu His Glu Thr Thr Thr Trp Pro Ser Ser
 485 490 495
 Phe Ser Ser Lys Gly His Thr Thr Trp Ser Gln Thr Glu Leu Pro Ser
 500 505 510
 Thr Ser Thr Gly Ala Ala Thr Arg Leu Val Thr Gly Asn Pro Ser Thr
 515 520 525
 Gly Ala Ala Gly Thr Ile Pro Arg Val Pro Ser Lys Val Ser Ala Ile
 530 535 540
 Gly Glu Pro Gly Glu Pro Thr Thr Tyr Ser Ser His Ser Thr Thr Leu
 545 550 555 560
 Pro Lys Thr Thr Gly Ala Gly Ala Gln Thr Gln Trp Thr Gln Glu Thr
 565 570 575
 Gly Thr Thr Gly Glu Ala Leu Leu Ser Ser Pro Ser Tyr Ser Val Thr
 580 585 590
 Gln Met Ile Lys Thr Ala Thr Ser Pro Ser Ser Ser Pro Met Leu Asp
 595 600 605
 Arg His Thr Ser Gln Gln Ile Thr Thr Ala Pro Ser Thr Asn His Ser
 610 615 620
 Thr Ile His Ser Thr Ser Thr Ser Pro Gln Glu Ser Pro Ala Val Ser
 625 630 635 640
 Gln Arg Gly His Thr Gln Ala Pro Gln Thr Thr Gln Glu Ser Gln Thr
 645 650 655
 Thr Arg Ser Val Ser Pro Met Thr Asp Thr Lys Thr Val Thr Thr Pro
 660 665 670
 Gly Ser Ser Phe Thr Ala Ser Gly His Ser Pro Ser Glu Ile Val Pro
 675 680 685
 Gln Asp Ala Pro Thr Ile Ser Ala Ala Thr Thr Phe Ala Pro Ala Pro
 690 695 700
 Thr Gly Asp Gly His Thr Thr Gln Ala Pro Thr Thr Ala Leu Gln Ala
 705 710 715 720
 Thr Pro Ser Ser His Asp Ala Thr Leu Gly Pro Ser Gly Gly Thr Ser
 725 730 735
 Leu Ser Lys Thr Gly Ala Leu Thr Leu Ala Asn Ser Val Val Ser Thr
 740 745 750
 Pro Gly Gly Pro Glu Gly Gln Trp Thr Ser Ala Ser Ala Ser Thr Ser
 755 760 765
 Pro Asp Thr Ala Ala Ala Met Thr His Thr His Gln Ala Glu Ser Thr
 770 775 780
 Glu Ala Ser Gly Gln Thr Gln Thr Ser Glu Pro Ala Ser Ser Gly Ser
 785 790 795 800
 Arg Thr Thr Ser Ala Gly Thr Ala Thr Pro Ser Ser Ser Gly Ala Ser
 805 810 815
 Gly Thr Thr Pro Ser Gly Ser Glu Gly Ile Ser Thr Ser Gly Glu Thr

820										825				830			
Thr	Arg	Phe	Ser	Ser	Asn	Pro	Ser	Arg	Asp	Ser	His	Thr	Thr	Gln	Ser		
		835					840					845					
Thr	Thr	Glu	Leu	Leu	Ser	Ala	Ser	Ala	Ser	His	Gly	Ala	Ile	Pro	Val		
	850					855					860						
Ser	Thr	Gly	Met	Ala	Ser	Ser	Ile	Val	Pro	Gly	Thr	Phe	His	Pro	Thr		
865					870					875					880		
Leu	Ser	Glu	Ala	Ser	Thr	Ala	Gly	Arg	Pro	Thr	Gly	Gln	Ser	Ser	Pro		
			885						890						895		
Thr	Ser	Pro	Ser	Ala	Ser	Pro	Gln	Glu	Thr	Ala	Ala	Ile	Ser	Arg	Met		
		900						905						910			
Ala	Gln	Thr	Gln	Arg	Thr	Arg	Thr	Ser	Arg	Gly	Ser	Asp	Thr	Ile	Ser		
	915						920					925					
Leu	Ala	Ser	Gln	Ala	Thr	Asp	Thr	Phe	Ser	Thr	Val	Pro	Pro	Thr	Pro		
	930					935					940						
Pro	Ser	Ile	Thr	Ser	Ser	Gly	Leu	Thr	Ser	Pro	Gln	Thr	Gln	Thr	His		
945					950					955					960		
Thr	Leu	Ser	Pro	Ser	Gly	Ser	Gly	Lys	Thr	Phe	Thr	Thr	Ala	Leu	Ile		
			965						970						975		
Ser	Asn	Ala	Thr	Pro	Leu	Pro	Val	Thr	Tyr	Ala	Ser	Ser	Ala	Ser	Thr		
		980						985					990				
Gly	His	Thr	Thr	Pro	Leu	His	Val	Thr	Asp	Ala	Ser	Ser	Val	Ser	Thr		
	995						1000						1005				
Gly	His	Ala	Thr	Pro	Leu	Pro	Val	Thr	Ser	Pro	Ser	Ser	Val	Ser	Thr		
	1010					1015						1020					
Gly	Asp	Thr	Thr	Pro	Leu	Pro	Val	Thr	Ser	Pro	Ser	Ser	Ala	Ser	Ser		
1025					1030					1035					1040		
Gly	His	Ala	Thr	Ser	Leu	Pro	Val	Thr	Asp	Ala	Ser	Ser	Leu	Ser	Thr		
			1045						1050					1055			
Gly	His	Ala	Thr	Ser	Leu	His	Val	Thr	Asp	Ala	Ser	Ser	Val	Ser	Thr		
		1060						1065					1070				
Gly	His	Ala	Thr	Leu	Leu	His	Val	Thr	Asp	Ala	Ser	Ser	Ala	Ser	Thr		
	1075						1080						1085				
Gly	His	Thr	Thr	Ser	Leu	Pro	Val	Thr	Asp	Ala	Ser	Ser	Val	Ser	Thr		
	1090					1095					1100						
Gly	Asp	Thr	Thr	Pro	Leu	Pro	Val	Thr	Asp	Thr	Ser	Ser	Ala	Ser	Thr		
1105					1110					1115					1120		
Gly	Asp	Thr	Thr	Pro	Leu	His	Val	Thr	Asp	Ala	Ser	Ser	Val	Ser	Thr		
			1125						1130					1135			
Gly	His	Ala	Thr	Pro	Leu	His	Val	Thr	Ser	Leu	Ser	Ser	Val	Ser	Thr		
		1140						1145					1150				
Gly	Asp	Thr	Thr	Pro	Leu	Pro	Val	Thr	Ser	Pro	Ser	Ser	Ala	Ser	Ser		
	1155						1160										

1250	1255	1260
Gly His Ala Thr Pro Leu His Val Thr Asp Ala Ser Ser Val Ser Thr		
1265	1270	1275
Gly Asp Thr Thr Pro Leu Pro Val Thr Ser Pro Ser Ser Ala Ser Thr		1280
	1285	1290
Gly Asp Thr Thr Pro Leu Pro Val Thr Asp Thr Ser Ser Val Ser Thr		1295
	1300	1305
Gly Asp Thr Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Val Ser Thr		1310
	1315	1320
Ser His Ala Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Val Ser Thr		1325
	1330	1335
Ser His Ala Thr Ser Leu Pro Val Thr Asp Pro Ser Ser Ala Ser Thr		1340
1345	1350	1355
Gly Asp Thr Thr Pro Leu Pro Val Thr Asp Thr Ser Ser Val Ser Thr		1360
	1365	1370
Gly His Ala Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr		1375
	1380	1385
Gly Asp Thr Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr		1390
	1395	1400
Gly His Ala Thr Pro Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr		1405
	1410	1415
Gly His Ala Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Ala Ser Thr		1420
1425	1430	1435
Gly His Thr Thr Pro Leu His Val Thr Ser Pro Ser Ser Ala Ser Thr		1440
	1445	1450
Gly His Ala Thr Pro Leu Pro Val Thr Ser Pro Ser Ser Ala Ser Thr		1455
	1460	1465
Ser His Ala Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr		1470
	1475	1480
Gly His Ala Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Ala Ser Thr		1485
	1490	1495
Gly His Ala Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Ala Ser Thr		1500
1505	1510	1515
Gly His Ala Thr Pro Leu Pro Val Thr Asp Thr Ser		1520
	1525	1530

<210> 1419

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1419

aaggctatgg gaattcaaaa gtatgtgttc tattccatcc acaactgtga caagcagcct
60

gaggttccct tgatggaaat caagtattgt actggtaaatt ttattcagga cagtggctctg
120

gattatatca tcatccgttt gtgtgggttc atgcagggtc ttattgggca atatgctgtt
180

cctatactag aagagaagtc cgtctgggga actgatgctc caactcggat tgcttacatg
240

gatacccagg acgtagctcg actaacgttt atagctatgc ggaatgagaa ggccaacaag
300

aaactcatg

309

<210> 1420
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 1420
 Lys Ala Met Gly Ile Gln Lys Tyr Val Phe Tyr Ser Ile His Asn Cys
 1 5 10 15
 Asp Lys Gln Pro Glu Val Pro Leu Met Glu Ile Lys Tyr Cys Thr Gly
 20 25 30
 Lys Phe Ile Gln Asp Ser Gly Leu Asp Tyr Ile Ile Ile Arg Leu Cys
 35 40 45
 Gly Phe Met Gln Gly Leu Ile Gly Gln Tyr Ala Val Pro Ile Leu Glu
 50 55 60
 Glu Lys Ser Val Trp Gly Thr Asp Ala Pro Thr Arg Ile Ala Tyr Met
 65 70 75 80
 Asp Thr Gln Asp Val Ala Arg Leu Thr Phe Ile Ala Met Arg Asn Glu
 85 90 95
 Lys Ala Asn Lys Lys Leu Met
 100

<210> 1421
 <211> 385
 <212> DNA
 <213> Homo sapiens

<400> 1421
 ccatggcggc atgggtggag agagaagctg gggagaagaa atgatgcaga gatctcgcca
 60
 ggccaggagg ctgggctggg cagccaggag tagagaaaca acgctcccag aggaggggag
 120
 gatgttagag caaagccgag cccagctgct ggcgaatgca tctgtgatgc ccatgagcag
 180
 ccaggatttc agctccgctc tacttcttga ctgctgcaga actcagcacc agctccagtg
 240
 ccctcagagc cctgattttt cacaaaccga ctctccaag cctcccctgt gggcgggata
 300
 cacaagccag agtcgccttg tcacatctct tctctctcca ccaggtcatt ggcaaactt
 360
 cctgacatac tttagacat tacag
 385

<210> 1422
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 1422
 Met Gly Gly Glu Arg Ser Trp Gly Glu Glu Met Met Gln Arg Ser Arg
 1 5 10 15
 Gln Ala Arg Glu Leu Gly Trp Ala Ala Arg Ser Arg Glu Thr Thr Leu
 20 25 30
 Pro Glu Glu Gly Arg Met Leu Glu Gln Ser Arg Ala Gln Leu Leu Ala


```

      35              40              45
Asn Ala Ser Val Met Pro Met Ser Ser Gln Asp Phe Ser Ser Ala Leu
  50              55              60
Leu Leu Asp Cys Cys Arg Thr Gln His Gln Leu Gln Cys Pro Gln Ser
  65              70              75              80
Pro Asp Phe Ser Gln Thr Asp Ser Ser Lys Pro Pro Leu Trp Ala Gly
      85              90              95
Tyr Thr Ser Gln Ser Arg Leu Val Thr Ser Leu Leu Ser Pro Pro Gly
      100              105              110
His Gly Gln Thr Phe Leu Thr Tyr Phe Thr Thr Leu Gln
      115              120              125

```

<210> 1423

<211> 336

<212> DNA

<213> Homo sapiens

<400> 1423

```

nntattcttc aatccttcca caatgtgcaa caaatggcga ttgactggct cactcgaaat
  60
ctctatcttg tggaccatgt cggtgaccgg atctttgttt gtaattccaa cggttctgta
  120
tgtgtcaccc tgattgatct ggagcttcac aatcctaaag caatagcagt agatccaata
  180
gcaggaaaac ttttctttac tgactacggg aatgtcgcca aagtggagag atgtgacatg
  240
gatgggatga accgaacaag gataattgat tcaaagacag agcagccagc tgcactggca
  300
ctagacctag tcaacaaatt ggtttactgg gtagat
  336

```

<210> 1424

<211> 112

<212> PRT

<213> Homo sapiens

<400> 1424

```

Xaa Ile Leu Gln Ser Phe His Asn Val Gln Gln Met Ala Ile Asp Trp
  1              5              10              15
Leu Thr Arg Asn Leu Tyr Phe Val Asp His Val Gly Asp Arg Ile Phe
      20              25              30
Val Cys Asn Ser Asn Gly Ser Val Cys Val Thr Leu Ile Asp Leu Glu
      35              40              45
Leu His Asn Pro Lys Ala Ile Ala Val Asp Pro Ile Ala Gly Lys Leu
      50              55              60
Phe Phe Thr Asp Tyr Gly Asn Val Ala Lys Val Glu Arg Cys Asp Met
      65              70              75              80
Asp Gly Met Asn Arg Thr Arg Ile Ile Asp Ser Lys Thr Glu Gln Pro
      85              90              95
Ala Ala Leu Ala Leu Asp Leu Val Asn Lys Leu Val Tyr Trp Val Asp
      100              105              110

```

<210> 1425

<211> 672

<212> DNA

<213> Homo sapiens

<400> 1425

```

accggtgttt tcgatcacct gggcggttg agtgactatc gcagtcagat cggccccgatg
60
gccccgcatg tcgaagacct ggccttggcg ctacaggtca ttgccggtga agatggggtc
120
gatgccgggg tgattccgat gccgctgcgc cgtatgcaaa ctcaaacgct gaagggggtg
180
cgagtgcct ggtacagcga tggtagcatt gagcccggtg acgcgctcac gcacaccaca
240
ttgcaggcgg tcgccgatct attggacgct gaaggcgctt tgatccgccc ggccttcccc
300
tcggcggttg gcaatgcccc tgacattacc gaacgctatt gggcaatgag tcaaagctcc
360
ggcgcgcatg cgatccagct gttttcagat tgggatcagt tccgtacagc catgctgggg
420
ttcatggccg actacgacat taccctgtgc cctgtcgatg ccgcgccggc gacccaactg
480
ggagagacgc ggccagggct gtccagttcc ccccttccta atggcttggc ggggtggcct
540
tgtgtggtgg tccgggccgg aacggatagc gcggggttgc cggttggcgt gcagattgtc
600
gcgcgacctt ggcacgagcc tgtcgcgttg gcggcagcag cggccattga gcgcgcgctg
660
ccgttcacgc gt
672

```

<210> 1426

<211> 224

<212> PRT

<213> Homo sapiens

<400> 1426

```

Thr Gly Val Phe Asp His Leu Gly Gly Leu Ser Asp Tyr Arg Ser Gln
1      5      10      15
Ile Gly Pro Met Ala Arg His Val Glu Asp Leu Ala Leu Ala Leu Gln
20     25     30
Val Ile Ala Gly Glu Asp Gly Val Asp Ala Gly Val Ile Pro Met Pro
35     40     45
Leu Arg Arg Met Gln Thr Gln Thr Leu Lys Gly Leu Arg Val Ala Trp
50     55     60
Tyr Ser Asp Gly Gly Ile Glu Pro Val Asp Ala Leu Thr His Thr Thr
65     70     75     80
Leu Gln Ala Val Ala Asp Leu Leu Asp Ala Glu Gly Ala Leu Ile Arg
85     90     95
Pro Ala Phe Pro Ser Ala Leu Ser Asn Ala Arg Asp Ile Thr Glu Arg
100    105    110
Tyr Trp Ala Met Ser Gln Ser Ser Gly Ala Gln Ser Ile Gln Leu Phe
115    120    125
Ser Asp Trp Asp Gln Phe Arg Thr Ala Met Leu Gly Phe Met Ala Asp
130    135    140
Tyr Asp Ile Ile Leu Cys Pro Val Asp Ala Ala Pro Ala Thr Gln Leu

```



```

145          150          155          160
Gly Glu Thr Arg Pro Gly Leu Phe Ser Ser Pro Leu Pro Asn Gly Leu
          165          170          175
Ala Gly Trp Pro Cys Val Val Val Arg Ala Gly Thr Asp Ser Ala Gly
          180          185          190
Leu Pro Val Gly Val Gln Ile Val Ala Arg Pro Trp His Glu Pro Val
          195          200          205
Ala Leu Ala Ala Ala Ala Ala Ile Glu Arg Ala Leu Pro Phe Thr Arg
          210          215          220

```

<210> 1427
 <211> 270
 <212> DNA
 <213> Homo sapiens

```

<400> 1427
atggcttgct atctgaagca ggtggctgcc accgtctgca taaatgggcc cagcgagtc
60
ttgatgttc cactaagata cggggatctg gtggtgacac ccatgcgact ggcttcggaa
120
ttgatgcaag tccatccctc aggggctgta cgcttcgctc actgttcagt tccccagaat
180
aaactcaact cacaaaagat acttccggtg gaaaaggccc aagggaagat cctcttcatt
240
gcaggagaga atgacgaaag cttggctagc
270

```

<210> 1428
 <211> 90
 <212> PRT
 <213> Homo sapiens

```

<400> 1428
Met Ala Cys Tyr Leu Lys Gln Val Ala Ala Thr Val Cys Ile Asn Gly
1          5          10          15
Pro Ser Ala Val Phe Asp Val Pro Leu Arg Tyr Gly Asp Leu Val Val
          20          25          30
Thr Pro Met Arg Leu Ala Ser Glu Leu Met Gln Val His Pro Ser Gly
          35          40          45
Ala Val Arg Phe Arg His Cys Ser Val Pro Gln Asn Lys Leu Asn Ser
          50          55          60
Gln Lys Ile Leu Pro Val Glu Lys Ala Gln Gly Lys Ile Leu Phe Ile
65          70          75          80
Ala Gly Glu Asn Asp Glu Ser Leu Ala Ser
          85          90

```

<210> 1429
 <211> 384
 <212> DNA
 <213> Homo sapiens

```

<400> 1429
ncctagggga ttatcgacat aaacgcgact gcgtaagggtt ggtgactcat cccccagcga
60

```


catgaggcaa acgccatgac atccgagaat gcaccgccgc gaggcaagat catcatgatg
 120
 gcggtgatcg ccggcgcggt gggtaccaac atttactgca cccagccggt gctgccgttg
 180
 atcgccctcg acatgggctg cgcagtgtcg acgggtcaacc tgggtggcagg cgcggccttg
 240
 ctgggggttg ccaccgggtt ggcgttttta ttgcccattg gcgaccgctt tgaccggcgc
 300
 aagctggtac tcgggcagat tgcgtggcg ttctgctttg ccttggcggc ggcttttgcg
 360
 ccgaggatct gggcggtgat cggc
 384

<210> 1430

<211> 103

<212> PRT

<213> Homo sapiens

<400> 1430

Met	Thr	Ser	Glu	Asn	Ala	Pro	Pro	Arg	Gly	Lys	Ile	Ile	Met	Met	Ala
1				5					10					15	
Val	Ile	Ala	Gly	Ala	Val	Val	Thr	Asn	Ile	Tyr	Cys	Thr	Gln	Pro	Val
		20						25					30		
Leu	Pro	Leu	Ile	Ala	Ser	Asp	Met	Gly	Val	Ala	Val	Ser	Thr	Val	Asn
		35					40					45			
Leu	Val	Ala	Gly	Ala	Ala	Leu	Leu	Gly	Phe	Ala	Thr	Gly	Leu	Ala	Phe
	50					55					60				
Leu	Leu	Pro	Met	Gly	Asp	Arg	Phe	Asp	Arg	Arg	Lys	Leu	Val	Leu	Gly
65				70					75					80	
Gln	Ile	Ala	Leu	Ala	Phe	Cys	Phe	Ala	Leu	Ala	Ala	Ala	Phe	Ala	Pro
			85						90					95	
Arg	Ile	Trp	Ala	Leu	Ile	Gly									
						100									

<210> 1431

<211> 414

<212> DNA

<213> Homo sapiens

<400> 1431

aagcttcagg gcaggtgtcc cctgaagtca agcctgattc tgcattatct tgtatagcac
 60
 aaactggcga cacctgtgac tttgccttcc ccagggtccc tgctctccgc tccaggtagg
 120
 ctgagcctga gggaggtgct ggcaggagcc tcggaggcag gaggggctgg cgtgcttcac
 180
 tccttcagct tgtcttggga gagctgtggg ctgcatcccc ctggctcttc gtccccacagg
 240
 cagccccgct gtgtgtctgg tcttgcaagg tggctgcagc ttctgggccc tgcttcacagc
 300
 cctcttccc atgactctcc agccttgga ggtgtaatag tttcccatgt tgctgatctt
 360
 tagtttgctt cctctctctt ggctgttctt tctgctgttc catcctctgt gcac
 414

<210> 1432
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 1432
 Met Gly Asn Tyr Tyr Thr Phe Gln Gly Trp Arg Ile Met Gly Arg Gly
 1 5 10 15
 Ala Gly Ser Arg Ala Gln Lys Leu Gln Pro Thr Cys Lys Thr Arg His
 20 25 30
 Thr Ala Gly Leu Pro Val Gly Arg Gly Ala Arg Gly Met Gln Pro Thr
 35 40 45
 Ala Leu Pro Arg Gln Ala Glu Gly Val Lys His Ala Ser Pro Ser Cys
 50 55 60
 Leu Arg Gly Ser Cys Gln His Leu Pro Gln Ala Glu Pro Thr Trp Ser
 65 70 75 80
 Gly Glu Gln Gly Pro Trp Glu Arg Gln Ser His Arg Cys Arg Gln Phe
 85 90 95
 Val Leu Tyr Lys Met Met Gln Asn Gln Ala
 100 105

<210> 1433
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 1433
 aaattttcga tggaactggg cggcaatgca ccgtttattg tatttgatga tgcggatgtg
 60
 gacgcggccg tcagcaatgc tgtggcttgc aagttccgct gtggtggaca aacgtgcatt
 120
 tcggccaacc gaatctacgt gcacgaacaa gtgcacgacg agtttgtctc taagtttggc
 180
 gagagagtca agaagcttcg cgtgggctac ggtctggacg aaaacatcaa cattggaccg
 240
 ctagtgaatg aggctagtca ggacaaagca gagtcacatg tccgtgcat gcaa
 294

<210> 1434
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 1434
 Lys Phe Ser Met Glu Leu Gly Gly Asn Ala Pro Phe Ile Val Phe Asp
 1 5 10 15
 Asp Ala Asp Val Asp Ala Ala Val Ser Asn Ala Val Ala Cys Lys Phe
 20 25 30
 Arg Cys Gly Gly Gln Thr Cys Ile Ser Ala Asn Arg Ile Tyr Val His
 35 40 45
 Glu Gln Val His Asp Glu Phe Val Ser Lys Phe Gly Glu Arg Val Lys
 50 55 60
 Lys Leu Arg Val Gly Tyr Gly Leu Asp Glu Asn Ile Asn Ile Gly Pro

65 70 75 80
 Leu Val Asn Glu Ala Ser Gln Asp Lys Ala Glu Ser His Val Arg Ala
 85 90 95
 Met Gln

<210> 1435

<211> 1772

<212> DNA

<213> Homo sapiens

<400> 1435

ntttctggct tatgtggttt ccccggtgtg gaggtgggat ccactccccg catagtctct
 60
 cgtggcgcgat ggacacctgg aaagtgtctg gatgtctttg aatgtgttaa tgatacaaag
 120
 ccagcctgcg tattaataaa tgtggaatat tatgatggag acatgtttcg aatggacaac
 180
 tgtcggttct gtcgatgcc aagggggcgtt gccatctgct tcaactgccca gtgtggtag
 240
 ataaactgcg agaggtaacta cgtgcccga ggagagtgtg gcccagtgtg tgaaatccag
 300
 tgtatccttt taataatccc gctggctgct gccaatggcc tgatccttgc ccacggagac
 360
 cgggtggcggg aagacgactg cacattctgc cagtgcgtca acggtgaacg ccactgcgtt
 420
 gcgaccgtct gcggacagac ctgcacaaac cctgtgaaag tgcctgggga gtgttgccct
 480
 gtgtgcgaag aaccaaccat catcacagtt gatccacctg catgtgggga gttatcaaac
 540
 tgcactctga caggaagga ctgcattaat gggttcaaac gcgatcacia tggttgtcgg
 600
 acctgtcagt gcataaacac cgaggaacta tgttcagaac gtaaacaagg ctgcacctg
 660
 aactgtccct tcgggttctt tactgatgcc caaaactgtg agatctgtga gtgccgcca
 720
 aggcccaaga agtgcagacc cataatctgt gacaagtatt gtccacttgg attgctgaag
 780
 aataagcacg gctgtgacat ctgtcgtgtg aagaaatgtc cagagctctc atgcagtaag
 840
 natctgcccc ttgggtttcc agcaggacag tcacggctgt cttatctgca agtgcagaga
 900
 ggctctgtct tcagctgggc caccatcct gtcgggcact tgtctcaccg tggatggta
 960
 tcatcataaa aatgaggaga gctggcacga tgggtgccgg gaatgctact gtctcaatgg
 1020
 acgggaaatg tgtgccctga tcacctgcc ggtgcctgcc tgtggcaacc ccaccattca
 1080
 cctggacag tgcgtcccat catgtgcaga tgactttgtg gtgcagaagc cagagctcag
 1140
 tactcnnct ccatttgcca cggccctgga ggagaatact ttgtggaagg agaaacgtgg
 1200
 aacattgact cctgtactca gtgcacctgc cacagcggac ggggtgctgtg tgagacagag
 1260

gtgtgcccac cgtgtgtctg ccagaacccc tcacgcaccc aggattcctg ctgcccacag
 1320
 tgtacagatc aaccttttcg gccttccttg tcccgcaata acagcgtacc taattactgc
 1380
 aaaaatgatg aaggggatat attcctggca gctgagtcct ggaagcctga cgtttgtacc
 1440
 agctgcatct gcattgatag cgtaattagc tgtttctctg agtcctgccc ttctgtatcc
 1500
 tgtgaaaaac ctgtcttgag aaaaggccag tgttgtccct actgcataga agacacaatt
 1560
 ccaaagaagg tgggtgtgcca cttcagtggg aaggcctatg ccgacgagga gcggtgggac
 1620
 cttgacagct gcacccactg ctactgcctg cagggccaga cttctgtctc gaccgtcage
 1680
 tgcccccttc tgccctgtgt tgagcccatc aacgtggaag gaagttgctg cccaatgtgt
 1740
 ccagaaatgt atgtcccagt cctttcacgc gt
 1772

<210> 1436

<211> 322

<212> PRT

<213> Homo sapiens

<400> 1436

Xaa	Ser	Gly	Leu	Cys	Gly	Phe	Pro	Val	Cys	Glu	Val	Gly	Ser	Thr	Pro
1				5					10					15	
Arg	Ile	Val	Ser	Arg	Gly	Asp	Gly	Thr	Pro	Gly	Lys	Cys	Cys	Asp	Val
			20					25					30		
Phe	Glu	Cys	Val	Asn	Asp	Thr	Lys	Pro	Ala	Cys	Val	Phe	Asn	Asn	Val
		35					40					45			
Glu	Tyr	Tyr	Asp	Gly	Asp	Met	Phe	Arg	Met	Asp	Asn	Cys	Arg	Phe	Cys
	50					55					60				
Arg	Cys	Gln	Gly	Gly	Val	Ala	Ile	Cys	Phe	Thr	Ala	Gln	Cys	Gly	Glu
65					70					75				80	
Ile	Asn	Cys	Glu	Arg	Tyr	Tyr	Val	Pro	Glu	Gly	Glu	Cys	Cys	Pro	Val
			85					90						95	
Cys	Glu	Ile	Gln	Cys	Ile	Leu	Leu	Ile	Ile	Pro	Leu	Ala	Ala	Ala	Asn
			100					105						110	
Gly	Leu	Ile	Leu	Ala	His	Gly	Asp	Arg	Trp	Arg	Glu	Asp	Asp	Cys	Thr
		115				120					125				
Phe	Cys	Gln	Cys	Val	Asn	Gly	Glu	Arg	His	Cys	Val	Ala	Thr	Val	Cys
		130				135					140				
Gly	Gln	Thr	Cys	Thr	Asn	Pro	Val	Lys	Val	Pro	Gly	Glu	Cys	Cys	Pro
145					150					155				160	
Val	Cys	Glu	Glu	Pro	Thr	Ile	Ile	Thr	Val	Asp	Pro	Pro	Ala	Cys	Gly
			165					170						175	
Glu	Leu	Ser	Asn	Cys	Thr	Leu	Thr	Gly	Lys	Asp	Cys	Ile	Asn	Gly	Phe
			180					185					190		
Lys	Arg	Asp	His	Asn	Gly	Cys	Arg	Thr	Cys	Gln	Cys	Ile	Asn	Thr	Glu
		195				200						205			
Glu	Leu	Cys	Ser	Glu	Arg	Lys	Gln	Gly	Cys	Thr	Leu	Asn	Cys	Pro	Phe
		210				215					220				
Gly	Phe	Leu	Thr	Asp	Ala	Gln	Asn	Cys	Glu	Ile	Cys	Glu	Cys	Arg	Pro


```

225                230                235                240
Arg Pro Lys Lys Cys Arg Pro Ile Ile Cys Asp Lys Tyr Cys Pro Leu
                245                250                255
Gly Leu Leu Lys Asn Lys His Gly Cys Asp Ile Cys Arg Cys Lys Lys
                260                265                270
Cys Pro Glu Leu Ser Cys Ser Lys Xaa Leu Pro Leu Gly Phe Pro Ala
                275                280                285
Gly Gln Ser Arg Leu Ser Tyr Leu Gln Val Gln Arg Gly Leu Cys Phe
                290                295                300
Ser Trp Ala Thr His Pro Val Gly His Leu Ser His Arg Gly Trp Ser
305                310                315                320
Ser Ser

```

<210> 1437
 <211> 372
 <212> DNA
 <213> Homo sapiens

```

<400> 1437
cggggaactgt gctcgccac catccggtga ccggtgtcgg gcagtggcaa ctcaacaccc
60
aggccatgac cggagccatc ccgagcagca ggtgcacggc ccgggccggt gactcgtgga
120
cccgtaccct catgacctcg atgcaacttc cacggtggtc caccgatcac atcgaccgct
180
cggtccatgt cgatgctgag cagttcgacc ggttgcgag cgagttcctg tcccgtgggc
240
acagttcttg ccctgccgca catgggggtcc tgggacttgg ccggggcctg ggtggccaga
300
cgcggttctt ccccgagttc cgtcgcgag aatcttccga gggcacagtt cgagttgttc
360
tgccgcacgc gt
372

```

<210> 1438
 <211> 62
 <212> PRT
 <213> Homo sapiens

```

<400> 1438
Met Ser Met Leu Ser Ser Ser Thr Gly Cys Ala Ala Ser Ser Cys Pro
1          5          10          15
Val Gly Thr Val Leu Ala Leu Pro His Met Gly Ser Trp Asp Leu Ala
20          25          30
Gly Ala Trp Val Ala Arg Arg Gly Phe Ser Pro Ser Ser Val Ala Glu
35          40          45
Asn Leu Pro Arg Ala Gln Phe Glu Leu Phe Cys Arg Thr Arg
50          55          60

```

<210> 1439
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 1439

accggtttgc tttccacaag gagagctaaa atgccggttg ctaagcagca tacatgccgc
60
tgcttctttc cacaatgtag acttaaaaaa atgccgtaa acattttacc atatgattga
120
gtcaggtgtg gggagtcgca gtaaacattt taccatgtga ttgagtcag ggtggggagt
180
cgcggaata cacagggcag gcagttcget atcacgatgt tctctctcat ttctgtcttt
240
ggctgtcttt cctgggtaat gtcacatgga gacccagggg atctgccatc agctgtgtgc
300
agtgggttaa caagacgacg gggaacttca gtagtcaggc agtcctcatc tttggcagat
360
tctgtatttg cacattcacc cactcactga aatgcatttg taaccccaaa atcaatacag
420
cggtttcaca gtcattttcc gacacgggca gaggggtgaa gatactgagt c
471

<210> 1440

<211> 101

<212> PRT

<213> Homo sapiens

<400> 1440

Met	Gly	Gly	Glu	Ser	Arg	Lys	Tyr	Thr	Gly	Gln	Ala	Val	Arg	Tyr	His
1				5				10						15	
Asp	Val	Leu	Ser	His	Phe	Cys	Leu	Trp	Ser	Val	Phe	Leu	Gly	Asn	Val
			20					25					30		
Thr	Trp	Arg	Pro	Arg	Gly	Ser	Ala	Ile	Ser	Cys	Val	Gln	Trp	Val	Asn
			35				40					45			
Lys	Thr	Thr	Gly	Asn	Phe	Arg	Val	Gln	Ala	Val	Leu	Ile	Phe	Gly	Arg
			50			55					60				
Phe	Cys	Ile	Cys	Thr	Phe	Thr	His	Ser	Leu	Lys	Cys	Ile	Cys	Asn	Pro
65					70					75				80	
Lys	Ile	Asn	Thr	Ala	Val	Ser	Gln	Ser	Phe	Ser	Asp	Thr	Gly	Arg	Gly
				85					90					95	
Val	Lys	Ile	Leu	Ser											
				100											

<210> 1441

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1441

nnngagtcgc ggggaccttc atggactctc tcgtgctccg tagctcacac tcaccgcacg
60
gcagctcaca ttcaccacac gggaactcac tctcaccaca cggcagctca ctctctctgc
120
accgcagctc aactcaccg cacggcagct cactctcacc gcacggcagc tcacactcac
180
cacacagcag ctactctta ccggacgggg aacctaact taccggacgg gaagcctcac
240

tctcaccgca cggaaagctc acactcaccg caccgcagcc actctcaccg cacggcagct
 300
 cactctcacc gcaccgcagc tcaactctcac cggacgggag ctcactctca ccacacggca
 360
 cctcactctc acgcgt
 376

<210> 1442
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 1442
 Xaa Glu Ser Arg Gly Pro Ser Trp Thr Leu Ser Cys Ser Val Ala His
 1 5 10 15
 Thr His Arg Thr Ala Ala His Ile His His Thr Gly Thr His Ser His
 20 25 30
 His Thr Ala Ala His Ser Leu Cys Thr Ala Ala His Thr His Arg Thr
 35 40 45
 Ala Ala His Ser His Arg Thr Ala Ala His Thr His His Thr Ala Ala
 50 55 60
 His Ser Tyr Arg Thr Gly Asn Leu Asn Leu Pro Asp Gly Lys Pro His
 65 70 75 80
 Ser His Arg Thr Glu Ser Ser His Ser Pro His Arg Ser His Ser His
 85 90 95
 Arg Thr Ala Ala His Ser His Arg Thr Ala Ala His Ser His Arg Thr
 100 105 110
 Gly Ala His Ser His His Thr Ala Pro His Ser His Ala
 115 120 125

<210> 1443
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 1443
 atggcagccc tgcgtcccaa ggagctgcca caactaatgg tcgccatcgg caatgcgagc
 60
 ataaaacgga caacacgctg cctgatcgaa tggcaactcc acaccatgac ccgtcctgcg
 120
 gaagccgcta cgacttcctg ggctgacatc gactgcgaca agaaaacctg gacgatccca
 180
 gcggagcgta tgaaaaagcg acgtgcccac gtcataccgc taaccgagca cgcacttgcc
 240
 ttgcttgaga caatcaaacc ctacagcggn cacagagagt acgcgt
 286

<210> 1444
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 1444
 Met Ala Ala Leu Arg Pro Lys Glu Leu Pro Gln Leu Met Val Ala Ile


```

1           5           10           15
Gly Asn Ala Ser Ile Lys Arg Thr Thr Arg Cys Leu Ile Glu Trp Gln
      20           25           30
Leu His Thr Met Thr Arg Pro Ala Glu Ala Ala Thr Thr Ser Trp Ala
      35           40           45
Asp Ile Asp Cys Asp Lys Lys Thr Trp Thr Ile Pro Ala Glu Arg Met
      50           55           60
Lys Lys Arg Arg Ala His Val Ile Pro Leu Thr Glu His Ala Leu Ala
      65           70           75           80
Leu Leu Glu Thr Ile Lys Pro Tyr Ser Gly His Arg Glu Tyr Ala
      85           90           95

```

<210> 1445

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1445

```

naccggttca ccggggaggc cttcgatggg ggcaagggtca gcatgggttg cccgattccc
60
atgtacctgt atggcacctt cgtcgttccg gacttcgacg cattcatctc cggcaagcag
120
actccctacc gggagacggt ctccaagcgg accactactt ggttctttcg agccggctca
180
gaggtttatg agctggccnt cccccgagga gtcgtgttcg ccatgcaaag cgcctcgttg
240
agggtggacc ccgacaacac cgtcgacaag ctgccaacac tcggcgagcg cctg
294

```

<210> 1446

<211> 98

<212> PRT

<213> Homo sapiens

<400> 1446

```

Xaa Arg Phe Thr Gly Glu Ala Phe Asp Gly Gly Lys Val Ser Met Val
1           5           10           15
Gly Pro Ile Pro Met Tyr Leu Tyr Gly Thr Phe Val Val Pro Asp Phe
      20           25           30
Asp Ala Phe Ile Ser Gly Lys Gln Thr Pro Tyr Arg Glu Thr Val Ser
      35           40           45
Lys Arg Thr Thr Thr Trp Phe Phe Arg Ala Gly Ser Glu Val Tyr Glu
      50           55           60
Leu Ala Xaa Pro Arg Gly Val Val Phe Ala Met Gln Ser Ala Ser Leu
      65           70           75           80
Arg Val Asp Pro Asp Asn Thr Val Asp Lys Leu Pro Thr Leu Gly Glu
      85           90           95
Arg Leu

```

<210> 1447

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1447

nnncagaacc agaagatcaa cctgcatgac ggctcgttct ccgacgttgg cggcatgggtg
 60
 ggtaatatct ccattgcccc ggggtgtcacg atcgagaacg ccgtcggcgg ttcgggcaac
 120
 gacctgctga tcggcaacga tgcggccaac gaactgcgcg gcggtgccgg caacgatata
 180
 ctctacgggg ctggcggtgc cgaccaggtt tgggttggtt cgggcaacaa taccttcgtg
 240
 ttgcgcgcgg tttccgactc ggcgccgaaa gcggccgacc ggatcatgga cttcaccagt
 300
 ggccaggaca agatcgatct gtccgggac acccatgggt cgggcctgac cttcgtcaac
 360
 gcg
 363

<210> 1448

<211> 121

<212> PRT

<213> Homo sapiens

<400> 1448

Xaa	Gln	Asn	Gln	Lys	Ile	Asn	Leu	His	Asp	Gly	Ser	Phe	Ser	Asp	Val
1				5				10						15	
Gly	Gly	Met	Val	Gly	Asn	Ile	Ser	Ile	Ala	Gln	Gly	Val	Thr	Ile	Glu
			20					25					30		
Asn	Ala	Val	Gly	Gly	Ser	Gly	Asn	Asp	Leu	Leu	Ile	Gly	Asn	Asp	Ala
			35				40					45			
Ala	Asn	Glu	Leu	Arg	Gly	Gly	Ala	Gly	Asn	Asp	Ile	Leu	Tyr	Gly	Ala
	50				55					60					
Gly	Gly	Ala	Asp	Gln	Val	Trp	Val	Gly	Ser	Gly	Asn	Asn	Thr	Phe	Val
65				70					75					80	
Phe	Ala	Ala	Val	Ser	Asp	Ser	Ala	Pro	Lys	Ala	Ala	Asp	Arg	Ile	Met
			85					90						95	
Asp	Phe	Thr	Ser	Gly	Gln	Asp	Lys	Ile	Asp	Leu	Ser	Gly	Ile	Thr	His
			100				105						110		
Gly	Ser	Gly	Leu	Thr	Phe	Val	Asn	Ala							
			115				120								

<210> 1449

<211> 541

<212> DNA

<213> Homo sapiens

<400> 1449

aggcgctacc agattatggg ctgcccgacc tcaatgacat gcgcttgagc ctgcatgaat
 60
 cactcagcca atcgcgcttg gcgattgaac gctttatcca ggcgtagcag cctcggttgg
 120
 ggaatgtacg tgtcaggagg agggaggggtg cctacaaccc tttggtactg gcgtttgtga
 180
 ttgaggcaac cgtcgctatc gatggtgtca tccaacctgt ggtgtttaac gcacacctgg
 240

tggggggggg gacgggtcga gtgtgttacc tgatgttctt tgagctcttt taccagagtg
 300
 aactcagtgc attgcgcacg cttggggcggc gtttttctga acgcaatccc gccctggcac
 360
 cttttcttgc cgattccagg ccaggaccgg gacgtcgagg gtctattgaa agtctttgcc
 420
 tttctccccg ggcgcctgcg ccagaagctt gctgacgagc ttctgagggt gaccattca
 480
 ttgatgcact tgggtgtggcc caattacatg cggccattgc cggccttcag tattttgcag
 540
 t
 541

<210> 1450

<211> 138

<212> PRT

<213> Homo sapiens

<400> 1450

Met	Arg	Leu	Ser	Leu	His	Glu	Ser	Leu	Ser	Gln	Ser	Arg	Leu	Ala	Ile
1				5				10					15		
Glu	Arg	Phe	Ile	Gln	Ala	Tyr	Glu	Pro	Arg	Leu	Gly	Asn	Val	Arg	Val
		20					25					30			
Arg	Arg	Arg	Glu	Gly	Ala	Tyr	Asn	Pro	Leu	Val	Leu	Ala	Phe	Val	Ile
		35				40						45			
Glu	Ala	Thr	Val	Val	Ile	Asp	Gly	Val	Ile	Gln	Pro	Val	Val	Phe	Asn
	50				55					60					
Ala	His	Leu	Val	Gly	Gly	Gly	Thr	Gly	Arg	Val	Cys	Tyr	Leu	Met	Phe
65				70				75					80		
Phe	Glu	Leu	Phe	Tyr	Gln	Ser	Glu	Leu	Ser	Ala	Leu	Arg	Thr	Leu	Gly
		85						90					95		
Arg	Arg	Phe	Ser	Glu	Arg	Asn	Pro	Ala	Leu	Ala	Pro	Phe	Leu	Ala	Asp
		100					105						110		
Ser	Arg	Pro	Gly	Pro	Gly	Arg	Arg	Gly	Ser	Ile	Glu	Ser	Leu	Cys	Leu
		115				120							125		
Ser	Pro	Arg	Ala	Pro	Ala	Pro	Glu	Ala	Cys						
		130				135									

<210> 1451

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1451

aggcctctgg cgagttgata tacagcttcg gacccgggtgc tatggctact ggcgtcaagt
 60
 acacgaacac agtttgcact cctgtggggc actacgaggt ggtgctgacg gattcttggg
 120
 gtgatggctg gaacccgggt tcttacctga acatgtacga cagctcggac aacttgatcc
 180
 aggagttcac gatggattac gacgcctctt ctcgtaacat taaggagaag cacggcttct
 240
 tcacggtggc ttccaccacg agcagcggca ctgtctggaa gattatggcg aacaagaagg
 300

tggaacaagga gtggaactct gtggac
326

<210> 1452

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1452

Met	Ala	Thr	Gly	Val	Lys	Tyr	Thr	Asn	Thr	Val	Cys	Thr	Pro	Val	Gly
1				5				10					15		
Asp	Tyr	Glu	Val	Val	Leu	Thr	Asp	Ser	Trp	Gly	Asp	Gly	Trp	Asn	Pro
		20					25					30			
Gly	Ser	Tyr	Leu	Asn	Met	Tyr	Asp	Ser	Ser	Asp	Asn	Leu	Ile	Gln	Glu
	35					40					45				
Phe	Thr	Met	Asp	Tyr	Asp	Ala	Ser	Ser	Arg	Asn	Ile	Lys	Glu	Lys	His
50					55					60					
Gly	Phe	Phe	Thr	Val	Ala	Ser	Thr	Thr	Ser	Ser	Gly	Thr	Val	Trp	Lys
65				70				75						80	
Ile	Met	Ala	Asn	Lys	Lys	Val	Asp	Lys	Glu	Trp	Asn	Ser	Val	Asp	
			85					90					95		

<210> 1453

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1453

cgccgcgcgc gccccacgtg caccgcgtgc atgggtccctc gaggacgcgc atctgcagcc
60
cccgtcccc gcaaacctcc aggccggaga gctccggcca aggccgctgc atcacatgat
120
acaggagggg catgcacacg ctcacgtgca cacagcctca aacacgctca tccgtacata
180
caggagtgtg tgaacgcact gaggtgcaca ggacaaagac acagacacct gtttgcacac
240
cgactcgcct atagaaatgt gcaaaccacc cgtgcgcaca ggccccctcca cccatgcagg
300
cgtgtgcaca tcacccacac ggacac
326

<210> 1454

<211> 98

<212> PRT

<213> Homo sapiens

<400> 1454

Met	Val	Pro	Arg	Gly	Arg	Ala	Ser	Ala	Ala	Pro	Ala	Pro	Arg	Lys	Pro
1				5				10					15		
Pro	Gly	Arg	Arg	Ala	Pro	Ala	Lys	Ala	Ala	Ala	Ser	His	Asp	Thr	Gly
		20					25					30			
Gly	Ala	Cys	Thr	Arg	Ser	Arg	Ala	His	Ser	Leu	Lys	His	Ala	His	Pro
	35					40					45				
Tyr	Ile	Gln	Glu	Cys	Val	Asn	Ala	Leu	Arg	Cys	Thr	Gly	Gln	Arg	His


```

      50              55              60
Arg His Leu Phe Ala His Arg Leu Ala Tyr Arg Asn Val Gln Thr Thr
65              70              75              80
Arg Ala His Arg Pro Leu His Pro Cys Arg Arg Val His Ile Thr His
      85              90              95
Thr Asp

```

<210> 1455
 <211> 314
 <212> DNA
 <213> Homo sapiens

```

<400> 1455
gatccagtc aaaaagcatg tgggggttgct cacgctgggt ggaaaggtag tttgttgggt
60
gttgctatgg ctacagtga tgctatgata gcagaatatg gctgccgttt ggaaaaactt
120
tgggtggacct tggacccttc agtggggacct ggctgtttta ctcttcagg ggaatcagca
180
gaggcatttc ataatcttca tcctgcatgt gtacaactat ttgattcacc aaatccctgt
240
atcgacatcc gtaaagccac aagatacttg actggatttt tgtataactg cttcctgcct
300
ccttccaaac tgac
314

```

<210> 1456
 <211> 104
 <212> PRT
 <213> Homo sapiens

```

<400> 1456
Asp Pro Val Lys Lys Ala Cys Gly Val Ala His Ala Gly Trp Lys Gly
1              5              10              15
Thr Leu Leu Gly Val Ala Met Ala Thr Val Asn Ala Met Ile Ala Glu
      20              25              30
Tyr Gly Cys Arg Leu Glu Lys Leu Trp Trp Thr Leu Asp Pro Ser Val
      35              40              45
Gly Pro Gly Cys Phe Thr Leu Pro Gly Glu Ser Ala Glu Ala Phe His
      50              55              60
Asn Leu His Pro Ala Cys Val Gln Leu Phe Asp Ser Pro Asn Pro Cys
65              70              75              80
Ile Asp Ile Arg Lys Ala Thr Arg Tyr Leu Thr Gly Phe Leu Tyr Asn
      85              90              95
Cys Phe Leu Pro Pro Ser Lys Leu
      100

```

<210> 1457
 <211> 437
 <212> DNA
 <213> Homo sapiens

<400> 1457

nattcaccag aatccccaga atccccaaa tactacattg cacttttaggg ttcctttcta
 60
 gcacatgcat tgctaaaatc ggcgcccaga accttctctg cccctctccc atgggatgca
 120
 atgtcagcgg agaaacagac caagtctgca ctagcctgtc cctacaccct cccagggaaa
 180
 aggtccccct gcgccaagtc aacagctccc agaggaagcc cactgactgc tctcttcagg
 240
 gtgggggaca caggaagtcc acgcttgac ggaggggacg ggcacaccta ccgtgactgc
 300
 cagagcccat tttgggagtc tgattggaat ttatacagca ggagcactgg gcactcggac
 360
 aactccagcc cacaaccaag tcaactgggct gcctaccac tgcccaagtg cctcaagtca
 420
 acacattcct gcactgn
 437

<210> 1458

<211> 105

<212> PRT

<213> Homo sapiens

<400> 1458

Met	Ser	Ala	Glu	Lys	Gln	Thr	Lys	Ser	Ala	Leu	Ala	Cys	Pro	Tyr	Thr
1				5					10					15	
Leu	Pro	Arg	Lys	Arg	Ser	Pro	Cys	Ala	Lys	Ser	Thr	Ala	Pro	Arg	Gly
			20					25					30		
Ser	Pro	Leu	Thr	Ala	Leu	Phe	Arg	Val	Gly	Asp	Thr	Gly	Ser	Pro	Arg
		35				40						45			
Leu	His	Gly	Gly	Asp	Gly	His	Thr	Tyr	Arg	Asp	Cys	Gln	Ser	Pro	Phe
	50					55				60					
Trp	Glu	Ser	Asp	Trp	Asn	Leu	Tyr	Ser	Arg	Ser	Thr	Gly	His	Ser	Asp
65					70				75					80	
Asn	Ser	Ser	Pro	Gln	Pro	Ser	His	Trp	Ala	Ala	Tyr	Pro	Leu	Pro	Lys
			85					90						95	
Cys	Leu	Lys	Ser	Thr	His	Ser	Cys	Thr							
			100					105							

<210> 1459

<211> 295

<212> DNA

<213> Homo sapiens

<400> 1459

ngagaggtca ccggccacga gattcccgcg gaggtcgcgc cccgccgcgc gggcgacccg
 60
 gccgtactca tcgcttcttc ggagaagatc aagcgggagc tgggctggaa cccgacgcgc
 120
 acggatctgc gccgcacgt cgaggacgcc tgggccttta cggctggggg ggccgaacgg
 180
 taaacccttg gtaaggcgac gcagttatcc tcgatctcct cccagagcag gcggcagccc
 240
 gccactgcgg tgctgagcat gccctccac tccccgatcg ccatgagctg gcgan
 295

<210> 1460
 <211> 60
 <212> PRT
 <213> Homo sapiens

<400> 1460
 Xaa Glu Val Thr Gly His Glu Ile Pro Ala Glu Val Ala Pro Arg Arg
 1 5 10 15
 Ala Gly Asp Pro Ala Val Leu Ile Ala Ser Ser Glu Lys Ile Lys Arg
 20 25 30
 Glu Leu Gly Trp Asn Pro Thr Arg Thr Asp Leu Arg Arg Ile Val Glu
 35 40 45
 Asp Ala Trp Ala Phe Thr Ala Gly Gly Ala Glu Arg
 50 55 60

<210> 1461
 <211> 432
 <212> DNA
 <213> Homo sapiens

<400> 1461
 nnaagcttac gtgaaatgaa acgtcaatgg caacaggcga caatcgtgcc agagaaattg
 60
 gttgaagcac agtcaattgc gggttctaaa tgcgaacacg cctggcgctt acaacgttca
 120
 gaaaatgact gggtaggctt tgaaaaaaat tggaaagagg ttgttgcatc atccccgtgaa
 180
 gaagcacaaa ttcgcggtga agcgcttaat ctaacgcctt atgatgcgat gcttgataag
 240
 tttgaaccag gcacgacaac ggtttcgctc aatactttgt tttcaaaggc aaagacgtgg
 300
 ttacctacgt taattgaaaa agcggttagaa aagcagcaat cagaatctat cattatgcca
 360
 tcaggcacct tttccacggc gaatcaaaaa gcccttggat tagaaataat gaaattgtta
 420
 aaattcgact tt
 432

<210> 1462
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 1462
 Xaa Ser Leu Arg Glu Met Lys Arg Gln Trp Gln Gln Ala Thr Ile Val
 1 5 10 15
 Pro Glu Lys Leu Val Glu Ala Gln Ser Ile Ala Gly Ser Lys Cys Glu
 20 25 30
 His Ala Trp Arg Leu Gln Arg Ser Glu Asn Asp Trp Val Gly Phe Glu
 35 40 45
 Lys Asn Trp Lys Glu Val Val Ala Leu Ser Arg Glu Glu Ala Gln Ile
 50 55 60
 Arg Gly Glu Ala Leu Asn Leu Thr Pro Tyr Asp Ala Met Leu Asp Lys


```
<210> 1463
<211> 421
<212> DNA
<213> Homo sapiens
```

```
<210> 1464
<211> 140
<212> PRT
<213> Homo sapiens
```

1223

115 120 125
 Thr Ser Lys Leu Leu Val Gly His Ile Gly Asp Ala
 130 135 140

<210> 1465
 <211> 424
 <212> DNA
 <213> Homo sapiens

<400> 1465
 gtgcacggtc tttgagctgc aattcccagg aatcaggggc cataggcggg agatggcatg
 60
 cagcctctcg ggcgggaaag tggctctacag tgcttgcttg cccgggcagg cagctcgtag
 120
 gcttatatgc ttagtggtta tggcccctac cactgttttt gaccgcgcta ccattcgcca
 180
 caacctcacc gaattcaaac tccggtggat ttcccacgcc gagcagtgga aggcggaaaa
 240
 ccgtcctgca acagagtcta aagccgctga gacggactgc tcagtacatg gggatctctg
 300
 gaccttggcc acggaagttt tcggtcaagc acccgaattc gacttcccat atatgaaact
 360
 cactcggcag gaatgtaggt tcccttttct gccgagaaac gacatcagct tgagctgctt
 420
 cacy
 424

<210> 1466
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 1466
 Met Ala Cys Ser Leu Ser Gly Gly Lys Val Val Tyr Ser Ala Cys Leu
 1 5 10 15
 Pro Gly Gln Ala Ala Arg Arg Leu Ile Cys Leu Val Val Met Ala Pro
 20 25 30
 Thr Thr Val Phe Asp Arg Ala Thr Ile Arg His Asn Leu Thr Glu Phe
 35 40 45
 Lys Leu Arg Trp Ile Ser His Ala Glu Gln Trp Lys Ala Glu Asn Arg
 50 55 60
 Pro Ala Thr Glu Ser Lys Ala Ala Glu Thr Asp Cys Ser Val His Gly
 65 70 75 80
 Asp Leu Trp Thr Leu Ala Thr Glu Val Phe Gly Gln Ala Pro Glu Phe
 85 90 95
 Asp Phe Pro Tyr Met Lys Leu Thr Arg Gln Glu Cys Arg Phe Leu Phe
 100 105 110
 Leu Pro Arg Asn Asp Ile Ser Leu Ser Cys Phe Thr
 115 120

<210> 1467
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 1467

nacgcgtgac ggcgaaatgag cggcggaggc atgacaacga gcgcaccgtt ccgcagcttg
 60
 gtgccgtgca tcatggctca agtgccgcgc aactttcggc tgctcgagga gctggagaaa
 120
 ggcgaaaagg ggctaggaaa tggctcgtgc tcttacggcc ttgcgaacag tgatgacatt
 180
 cgtacgtatg cgcctgtgct gatggctatg acaacgtgga atgccacgat cctaggccccg
 240
 gccaaactcgg tgcattgagaa ccgcatatac tgccctgcgcc tcgtgtgtgg cgactcgtac
 300
 cctcttgtgc cgcctgagat ttggttccag acgcgcatac acttgccgtg cgtcgtatgcc
 360
 cacacggggc gcgtcatgcc cgatcagttc tcgcccctct tgcattggcg tgatgagtac
 420
 actatggaaa gctgctgcat g
 441

<210> 1468

<211> 123

<212> PRT

<213> Homo sapiens

<400> 1468

Met	Ala	Gln	Val	Pro	Arg	Asn	Phe	Arg	Leu	Leu	Glu	Glu	Leu	Glu	Lys
1				5				10					15		
Gly	Glu	Lys	Gly	Leu	Gly	Asn	Gly	Ser	Cys	Ser	Tyr	Gly	Leu	Ala	Asn
			20					25					30		
Ser	Asp	Asp	Ile	Arg	Thr	Tyr	Ala	Pro	Val	Leu	Met	Val	Met	Thr	Thr
			35				40					45			
Trp	Asn	Ala	Thr	Ile	Leu	Gly	Pro	Ala	Asn	Ser	Val	His	Glu	Asn	Arg
			50			55					60				
Ile	Tyr	Cys	Leu	Arg	Leu	Val	Cys	Gly	Asp	Ser	Tyr	Pro	Leu	Val	Pro
65					70					75				80	
Pro	Glu	Ile	Trp	Phe	Gln	Thr	Arg	Ile	Asn	Leu	Pro	Cys	Val	Asp	Ala
				85					90					95	
His	Thr	Gly	Arg	Val	Met	Pro	Asp	Gln	Phe	Ser	Pro	Leu	Leu	His	Trp
			100					105					110		
Arg	Asp	Glu	Tyr	Thr	Met	Glu	Ser	Cys	Cys	Met					
			115					120							

<210> 1469

<211> 468

<212> DNA

<213> Homo sapiens

<400> 1469

nngctcgatc tagtctatgg gctaaatgat cgaccgaacc cttttattgc ttttttagcg
 60
 gcgcttcaac atcttttagc gatttttagtg ccaattgtca ccnctggatt attgatttgc
 120
 ttggcattag gcgtgtctcg cgaagacacc aatatgattc tttctatgctc attaattatt
 180

tcagggatcg cgactttctt gcaatgtaaa aaagtgggtc catttggcgc tggattactt
 240
 attgttcaag gaactagctt taatttcatt ggtcctatca ttggtatagg tagctcaatg
 300
 gtggctgctg gcacacctgt cgaacaagtt atggctgcga tttttgggtg cgtaatcgca
 360
 ggttcattta tcgaaatggg cgtatctcaa attttacctt gggtaaaaaa gctgattact
 420
 cctctcgta caggaatcgt cgttctgttg attggtctac cattaatg
 468

<210> 1470

<211> 156

<212> PRT

<213> Homo sapiens

<400> 1470

Xaa	Leu	Asp	Leu	Val	Tyr	Gly	Leu	Asn	Asp	Arg	Pro	Asn	Pro	Phe	Ile
1			5					10					15		
Ala	Phe	Leu	Ala	Ala	Leu	Gln	His	Leu	Leu	Ala	Ile	Leu	Val	Pro	Ile
		20						25				30			
Val	Thr	Xaa	Gly	Leu	Leu	Ile	Cys	Leu	Ala	Leu	Gly	Val	Ser	Arg	Glu
	35					40					45				
Asp	Thr	Asn	Met	Ile	Leu	Ser	Met	Ser	Leu	Ile	Ile	Ser	Gly	Ile	Ala
	50				55					60					
Thr	Phe	Leu	Gln	Cys	Lys	Lys	Val	Gly	Pro	Phe	Gly	Ala	Gly	Leu	Leu
65				70				75						80	
Ile	Val	Gln	Gly	Thr	Ser	Phe	Asn	Phe	Ile	Gly	Pro	Ile	Ile	Gly	Ile
		85						90						95	
Gly	Ser	Ser	Met	Val	Ala	Ala	Gly	Thr	Pro	Val	Glu	Gln	Val	Met	Ala
	100						105					110			
Ala	Ile	Phe	Gly	Val	Val	Ile	Ala	Gly	Ser	Phe	Ile	Glu	Met	Gly	Val
	115					120						125			
Ser	Gln	Ile	Leu	Pro	Trp	Val	Lys	Lys	Leu	Ile	Thr	Pro	Leu	Val	Thr
	130					135					140				
Gly	Ile	Val	Val	Leu	Leu	Ile	Gly	Leu	Pro	Leu	Met				
145					150						155				

<210> 1471

<211> 341

<212> DNA

<213> Homo sapiens

<400> 1471

gcgtggatgg ggatcctgaa aaacaatggc gtgctgaata acttcttgct gtggctcggc
 60
 gttatcgatc agccgctgac gattttgcac accaatctgg cggtgtatat cggcattgtg
 120
 tacgcttate tgccgtttat ggtactgcc atttatacgg cgctgacgcg cattgattac
 180
 tcgctggtgg aggcctcact ggatctcggg gcccgccgc tgaaaacggt tttcaatgtg
 240
 attgtccgc tcaccaaagg cggcattatc gcggggcgca tgctggtgtt tatcccggcg
 300

gtcggtagt ttgttatccc ggaactgctc ggcggcggcc g
341

<210> 1472
<211> 113
<212> PRT
<213> Homo sapiens

<400> 1472
Ala Trp Met Gly Ile Leu Lys Asn Asn Gly Val Leu Asn Asn Phe Leu
1 5 10 15
Leu Trp Leu Gly Val Ile Asp Gln Pro Leu Thr Ile Leu His Thr Asn
20 25 30
Leu Ala Val Tyr Ile Gly Ile Val Tyr Ala Tyr Leu Pro Phe Met Val
35 40 45
Leu Pro Ile Tyr Thr Ala Leu Thr Arg Ile Asp Tyr Ser Leu Val Glu
50 55 60
Ala Ser Leu Asp Leu Gly Ala Arg Pro Leu Lys Thr Phe Phe Asn Val
65 70 75 80
Ile Val Pro Leu Thr Lys Gly Gly Ile Ile Ala Gly Ser Met Leu Val
85 90 95
Phe Ile Pro Ala Val Gly Glu Phe Val Ile Pro Glu Leu Leu Gly Gly
100 105 110
Gly

<210> 1473
<211> 352
<212> DNA
<213> Homo sapiens

<400> 1473
tccggaactg ctcaatgtct gtccagcaca taagatccat gcttgaagaa tgagtctcaa
60
gaaactgacg gaaatgttca aactccagtt tggtgttaag cagatcacta aacttaaaat
120
gcttgtattc tgcaggaaca ttatcccaat attctgttcg tttagagacg ttagagagtg
180
ataaaatgcc agttccaatt tcacaagtgg tgtcctcagc tttcttgga aatgtctctt
240
tatgcaaagc ctgtagcttt ctgaagtatg tggagtctaa ctgtcgagtt tcttccacca
300
gtccacctt tttataagca atttgggtccg attttaccat ctttgtccat gg
352

<210> 1474
<211> 113
<212> PRT
<213> Homo sapiens

<400> 1474
Met Val Lys Ser Asp Gln Ile Ala Tyr Lys Lys Val Glu Leu Val Glu
1 5 10 15
Glu Thr Arg Gln Leu Asp Ser Thr Tyr Phe Arg Lys Leu Gln Ala Leu

20 25 30
 His Lys Glu Thr Phe Ser Lys Lys Ala Glu Asp Thr Thr Cys Glu Ile
 35 40 45
 Gly Thr Gly Ile Leu Ser Leu Ser Asn Val Ser Lys Arg Thr Glu Tyr
 50 55 60
 Trp Asp Asn Val Pro Ala Glu Tyr Lys His Phe Lys Phe Ser Asp Leu
 65 70 75 80
 Leu Asn Asn Lys Leu Glu Phe Glu His Phe Arg Gln Phe Leu Glu Thr
 85 90 95
 His Ser Ser Ser Met Asp Leu Met Cys Trp Thr Asp Ile Glu Gln Phe
 100 105 110
 Arg

<210> 1475

<211> 389

<212> DNA

<213> Homo sapiens

<400> 1475

accggtgccg gagccgatct ccacgatggg cttggcgccg gtgcggccga accactcatc
 60
 gacatcgata agtccatcgc ttaagacgcg gccagctcg ggccagcatt gctcaaaaag
 120
 ctggtgctgg ttgtccgtga gcgtgccgcg ggggaaaggg acctttgccc aggcgcgggt
 180
 agtccagggtc attatcaaag accgcattga agtccgtttg cggcgggcga cccggcgggca
 240
 tttctccggc aggggggtgtt ttgagaatta tccgtgctat acatcgcgcc ctatttttcc
 300
 ctgtccaggc atggcaagca atatgccgcg ccgggtattt tccccgccgt atggggaggg
 360
 ggataaccgg agcttgacgg ggtggtgtc
 389

<210> 1476

<211> 121

<212> PRT

<213> Homo sapiens

<400> 1476

Met Val Leu Ala Pro Val Arg Pro Asn His Ser Ser Thr Ser Ile Ser
 1 5 10 15
 Ser Ser Leu Lys Thr Arg Pro Ser Ser Gly Gln His Cys Ser Lys Ser
 20 25 30
 Trp Cys Trp Leu Ser Val Ser Val Pro Arg Gly Lys Gly Thr Phe Ala
 35 40 45
 Gln Ala Arg Val Val Gln Val Ile Ile Lys Asp Arg Ile Glu Val Arg
 50 55 60
 Leu Arg Arg Ala Thr Arg Arg His Phe Ser Gly Arg Gly Cys Phe Glu
 65 70 75 80
 Asn Tyr Pro Cys Tyr Thr Ser Arg Pro Ile Phe Pro Cys Pro Gly Met
 85 90 95
 Ala Ser Asn Met Pro Arg Arg Val Phe Ser Pro Pro Tyr Gly Glu Gly

100 105 110
 Asp Asn Arg Ser Leu Thr Gly Trp Cys
 115 120

<210> 1477
 <211> 500
 <212> DNA
 <213> Homo sapiens

<400> 1477
 tacagcgaga atctgcacga tacccacttc ctcaaaacct attgcgttgg cttcgagcaa
 60
 ttctccctt atttgctggg ccaaaccggac ggccaacct aagatgccca atgggcatcg
 120
 gcgctgtgtg gtattgatgc cgaaatcatc cgggcactgg cccgccaaat ggcggccaac
 180
 cgtacgcaaa tcattgcggg ctggtgcgtg caacgtatgc aacacggcga acaatgggcg
 240
 tggatgacgg tagtgctggc ggcatgctt ggccaaatcg gcttaccggg cggcgggttc
 300
 ggttttggtt ggccctccaa cggcgcaggt acccccagagc cgcaaggggt gatcctgagc
 360
 ggttttctccg gttccccgc tacgccggca cgccatgcc aaggggattt caaagggttac
 420
 agcagtacca ttccgatcgc gcgctttatc gatgccatgc tggagccggg caaggagatc
 480
 gattggaatg gcaaacgcgt
 500

<210> 1478
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 1478
 Tyr Ser Glu Asn Leu His Asp Thr His Phe Leu Lys Thr Tyr Cys Val
 1 5 10 15
 Gly Phe Glu Gln Phe Leu Pro Tyr Leu Leu Gly Gln Thr Asp Gly Gln
 20 25 30
 Pro Lys Asp Ala Gln Trp Ala Ser Ala Leu Cys Gly Ile Asp Ala Glu
 35 40 45
 Ile Ile Arg Ala Leu Ala Arg Gln Met Ala Ala Asn Arg Thr Gln Ile
 50 55 60
 Ile Ala Gly Trp Cys Val Gln Arg Met Gln His Gly Glu Gln Trp Ala
 65 70 75 80
 Trp Met Thr Val Val Leu Ala Ala Me- Leu Gly Gln Ile Gly Leu Pro
 85 90 95
 Gly Gly Gly Phe Gly Phe Gly Trp Pro Ser Asn Gly Ala Gly Thr Pro
 100 105 110
 Glu Pro Gln Gly Val Ile Leu Ser Gly Phe Ser Gly Ser Pro Ala Thr
 115 120 125
 Pro Ala Arg His Ala Lys Gly Asp Phe Lys Gly Tyr Ser Ser Thr Ile
 130 135 140
 Pro Ile Ala Arg Phe Ile Asp Ala Met Leu Glu Pro Gly Lys Glu Ile


```
<210> 1479
<211> 421
<212> DNA
<213> Homo sapiens
```

```
<210> 1480
<211> 133
<212> PRT
<213> Homo sapiens
```

<210> 1481
<211> 545

<212> DNA

<213> Homo sapiens

<400> 1481

gtcgggtcgc cgcccagtct cgtgccgaca tgcagttcct ggcccgggag gtcgcatcca
 60
 tccggatgca gatgggagcag ttggccacgc gcgattattt gcgctcggag ctacgcgacg
 120
 agttgcgctc cctgctcgag gagatcgagg cctcaccggc ctcccactaa ctgacccggg
 180
 tcgcgacgag cgagttgtcg catcgggcca acggtgtgta gacaagtcag catgagcacc
 240
 gagaacccag tgggtaaggc cattgccgat gcggtgtcgc acgtcaatga ccccgagatc
 300
 aaacgccccca ttaccgatct caacatgatt gatgagatta ccgtcgacga gcaaggacgc
 360
 gctttcgtcc gcatectgct gaccgtcgcc ggggtgtcccc tcaagaccga gctgcgtgag
 420
 caggccaccg aggctgtgcy cagcgttgac ggggtgacca gtgtttccgt cgaactcggc
 480
 accatgaccg acgaacagcy cgatgctctc aaagttcagc tgcgcggtga cgtccccgaa
 540
 cgcgt
 545

<210> 1482

<211> 104

<212> PRT

<213> Homo sapiens

<400> 1482

Met	Ser	Thr	Glu	Asn	Pro	Val	Val	Lys	Ala	Ile	Ala	Asp	Ala	Leu	Ser
1				5				10						15	
His	Val	Asn	Asp	Pro	Glu	Ile	Lys	Arg	Pro	Ile	Thr	Asp	Leu	Asn	Met
		20					25						30		
Ile	Asp	Glu	Ile	Thr	Val	Asp	Glu	Gln	Gly	Arg	Ala	Phe	Val	Arg	Ile
		35				40					45				
Leu	Leu	Thr	Val	Ala	Gly	Cys	Pro	Leu	Lys	Thr	Glu	Leu	Arg	Glu	Gln
	50				55					60					
Ala	Thr	Glu	Ala	Val	Arg	Ser	Val	Asp	Gly	Val	Thr	Ser	Val	Ser	Val
65				70				75						80	
Glu	Leu	Gly	Thr	Met	Thr	Asp	Glu	Gln	Arg	Asp	Ala	Leu	Lys	Val	Gln
			85				90							95	
Leu	Arg	Gly	Asp	Val	Pro	Glu	Arg								
				100											

<210> 1483

<211> 625

<212> DNA

<213> Homo sapiens

<400> 1483

gtacggcttc gagagggcta cagtgtccga gaggtcacac tggccaaagg aggggtcccaa
 60

ttggaggtaa agctggtgct gctgtggaaa cacaacatgc gcattgagta tgtggctatg
 120
 gcacccctggc ccctggagcc tgagggccct cgagtaacac ggggtggaagt gacgatggaa
 180
 ggcggctacg acattttgca tgatgtgtcc tgtgcactaa ggcagcccat tcgttcattg
 240
 tatcgtaccc atgttatccg gcgtttctgg aacacgctgc agagcatcaa ccagacagac
 300
 cagatgcttg ccacacctca gtccttctcc tcagtgcctg agcatttcac gcttctgac
 360
 agcaccaaga gcggagtgcc actcttctac atccctccag gctccaccac cccggtgctc
 420
 tccctccagc ccagtgggtc tgactcatcc catgcccagt ttgctgccta ctggaagccc
 480
 agtgctgtcc atggatgcaa attcctggca gcgatggctg cacatgcac gcctgggtgct
 540
 aatcctggag catgacacac caatcccaa gcacttgac accccgggca gcaatgggag
 600
 ctactacgga gagaagacaa cgcgt
 625

<210> 1484

<211> 184

<212> PRT

<213> Homo sapiens

<400> 1484

Val	Arg	Leu	Arg	Glu	Gly	Tyr	Ser	Val	Arg	Glu	Val	Thr	Leu	Ala	Lys
1				5					10					15	
Gly	Gly	Ser	Gln	Leu	Glu	Val	Lys	Leu	Val	Leu	Leu	Trp	Lys	His	Asn
			20					25					30		
Met	Arg	Ile	Glu	Tyr	Val	Ala	Met	Ala	Ser	Trp	Pro	Leu	Glu	Pro	Glu
			35				40					45			
Gly	Pro	Arg	Val	Thr	Arg	Val	Glu	Val	Thr	Met	Glu	Gly	Gly	Tyr	Asp
			50			55				60					
Ile	Leu	His	Asp	Val	Ser	Cys	Ala	Leu	Arg	Gln	Pro	Ile	Arg	Ser	Leu
65				70					75					80	
Tyr	Arg	Thr	His	Val	Ile	Arg	Arg	Phe	Trp	Asn	Thr	Leu	Gln	Ser	Ile
			85					90					95		
Asn	Gln	Thr	Asp	Gln	Met	Leu	Ala	His	Leu	Gln	Ser	Phe	Ser	Ser	Val
			100				105					110			
Pro	Glu	His	Phe	Thr	Leu	Pro	Asp	Ser	Thr	Lys	Ser	Gly	Val	Pro	Leu
			115				120					125			
Phe	Tyr	Ile	Pro	Pro	Gly	Ser	Thr	Thr	Pro	Val	Leu	Ser	Leu	Gln	Pro
			130			135					140				
Ser	Gly	Ser	Asp	Ser	Ser	His	Ala	Gln	Phe	Ala	Ala	Tyr	Trp	Lys	Pro
145				150					155					160	
Ser	Ala	Val	His	Gly	Cys	Lys	Phe	Leu	Ala	Ala	Met	Ala	Ala	His	Ala
			165					170						175	
Ser	Pro	Gly	Ala	Asn	Pro	Gly	Ala								
			180												

<210> 1485

<211> 2058

<212> DNA

<213> Homo sapiens

<400> 1485

ntatgttcag cgttcaacga tattggctac cactatgggtg ccatgggtcgt cgatgctgcg
60
ctgttcctgc cacagtcacg acccagacta tttatcattg gtgtcagaaa cgatattttt
120
gttggcgata ttacttctga atcacctctt aaaatgtggc ataccagaac tttattgaat
180
gcctacagca atctgaaaga tgatgccaaag tccaattggg tatggtggga ccttcctatg
240
ccagcccaga gaaaatctgc ttctgccgat ttgattgaag aaaatcctag cagcgттаг
300
tgccataccc ggaaggaaac acagcagctc ttggatatga tgactgatgt таacttagct
360
aaggттgagg ctgcaaaaaa gctatcgatc gagtctaagg aaaatgttgt agggacaatt
420
tataaaagaa ctcgcaccca tagctttgga gttaaagcgc agcgtgctga agtgcggttt
480
gatgatgttg ccggttgctt tcgcaccctt ggaggggggt caagtcggca agtcataatg
540
gtcgttgata acgggactgt aaaaacgagg ttgatctcaa gtagagaaac tgcaaggctt
600
atggggttac ccgacgaata catattgcc aaaaattata atgaggcgta tcacttaacg
660
ggtgatggtg ttgtagtgcc ggttgatatc cacatagcca ctcatatttt tgaccagtg
720
atggagcgtg tgттtgagga tgcggcggga ctgcttaagc aaatcgcata gcatcgттt
780
ggcaggaaga tatgagcgtt attccgtgta aaaaggacct tcagctaaaa aaattgattg
840
aatcctatgc agaagccttg aaagттgagg cccataagct aggagagcat ggattaactg
900
aagctgaatt ttatgatagc ggctcttttc ggggggctat cgagcgaatt cgaggacagt
960
tctccgcgac catgcgggag aaaagaaatt tcgttaagca tgттttaaat tacatgcagg
1020
ataacgacta cattgctgat tgggagtcgg ctggtgaatc gaatcgccat gattatatgg
1080
taactctcaa ttctgggcgc aaagctgcta ttgagctgaa agggтgcctt gatggcaata
1140
acactaacat cттtgatcgc cccctcagg cagaagaatt tgттatctgg agtgтatgca
1200
caaatcctgg tgctgacct cagcataatg тttggtctgg gcttcacacc agactaagtg
1260
ctgaaatcat ttcacgggag caaaggattg atggaatggt catttgggac tgggcttgтg
1320
gaacagtcgg aaggccatgc cccaaaatag caactgaacc tgagcgggct gтаacatttg
1380
ggccgttcaa attgccgcca ccatgtттgt atctттtacc ttcgacgatt ccaagcccaa
1440
gaaacaaccc gtctccaaga gctcagcaga ttgaagacgt gcagctaatc aaagcgттtc
1500

acgattgttt tgggtgccgg tctgaagaag ttaatttcgt taactttgat gttggttatac
 1560
 atggtaaaga taccgtccgt aaaacgacta tcattcgaaa cggcatggtg gagcgtgaat
 1620
 cggaatgac ggcaataagg cggctttaat ttgtgcatgc ctatgctgca tgaatccgca
 1680
 tgatcgtttg aggatcgttt ttgctgaggc cgcgcagttc tgggtgggctt ttgcttatgt
 1740
 catgcacctg catgaaaacc gctacataaa gcgggcaggc gtggcgggga tacgagcgcg
 1800
 cgcaacgggg tgaaatgggtg aatatcaggg gcaatctccg gcacgtggc ggcttgaatc
 1860
 gggtaggggtg agtgagaggc agcaataaag aagcgccccg cagaatgctg ctggggcgct
 1920
 gtgagagggtg gtcttggtgt cgcggtgccg tgggtcagtc gtagcgattg tcttctgtca
 1980
 gccccagcgt gtacggctca aagcggatca cttcttcgcc cagccagtc ttaagctccc
 2040
 gcagtcgctt ctgcaggc
 2058

<210> 1486
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 1486
 Xaa Cys Ser Ala Phe Asn Asp Ile Gly Tyr His Tyr Gly Ala Met Val
 1 5 10 15
 Val Asp Ala Ala Leu Phe Leu Pro Gln Ser Arg Pro Arg Leu Phe Ile
 20 25 30
 Ile Gly Val Arg Asn Asp Ile Phe Val Gly Asp Ile Thr Ser Glu Ser
 35 40 45
 Pro Ser Lys Met Trp His Thr Arg Thr Leu Leu Asn Ala Tyr Ser Asn
 50 55 60
 Leu Lys Asp Asp Ala Lys Ser Asn Trp Val Trp Trp Asp Leu Pro Met
 65 70 75 80
 Pro Ala Gln Arg Lys Ser Ala Phe Ala Asp Leu Ile Glu Glu Asn Pro
 85 90 95
 Ser Ser Val Lys Trp His Thr Arg Lys Glu Thr Gln Gln Leu Leu Asp
 100 105 110
 Met Met Thr Asp Val Asn Leu Ala Lys Val Glu Ala Ala Lys Lys Leu
 115 120 125
 Ser Ile Glu Ser Lys Glu Asn Val Val Gly Thr Ile Tyr Lys Arg Thr
 130 135 140
 Arg Thr Asp Ser Phe Gly Val Lys Ala Gln Arg Ala Glu Val Arg Phe
 145 150 155 160
 Asp Asp Val Ala Gly Cys Leu Arg Thr Pro Gly Gly Gly Ser Ser Arg
 165 170 175
 Gln Val Ile Met Val Val Asp Asn Gly Thr Val Lys Thr Arg Leu Ile
 180 185 190
 Ser Ser Arg Glu Thr Ala Arg Leu Met Gly Leu Pro Asp Glu Tyr Ile
 195 200 205
 Leu Pro Lys Asn Tyr Asn Glu Ala Tyr His Leu Thr Gly Asp Gly Val

210	215	220
Val Val Pro Val Val Ser His Ile Ala Thr His Ile Phe Asp Pro Val		
225	230	235
Met Glu Arg Val Phe Glu Asp Ala Ala Gly Leu Leu Lys Gln Ile Ala		240
	245	250
		255

<210> 1487

<211> 823

<212> DNA

<213> Homo sapiens

<400> 1487

acgcgtgagg ggaggggatg ctgggcagat cttgtgaggg aaaattcagg aaggacctct
60
ccgagcaggt gacatttcag ctaaggctgg gaaggatgag gagaagtcag gaactccagg
120
catcagggaa tgctggggaa aaaaagcact ccaggcccag ggatcagcaa agcacaggat
180
gcctggggga acacacagcc tcagagcatt tgaggaacag aaaaggcaac gtgactaage
240
ttctgggggc ggtgaggtca ggcagggagg tgggtgagag gtcagggggc cgcaggcaaa
300
cgccctccc tccagtgcc ccacatgcag gccctggagc accaggagcg gggaggctcc
360
gtggtgtgtc ttctgcaag tggcctgctt ttgggagcat cagccctttc ttctggggac
420
tgaggagagg cggcagtgag ggaagaatgg ccctcggtcg tgcgtagaga atgtagggga
480
cacaggcct ctacaggacc cagatcctga tcttgtcaga tctgcacgcc cgtgggaggg
540
tgctggcggc agaaacgcgt tgccataagc cttctcccca ctgcaggcag gtgtgggtcag
600
gggacctcct tggagaacaa ggtgggggaa tttggcagct ttctcagcat ggcgtccatc
660
cccctacat tctgggggca cccactgtag gccaggccct gtgccggatc tgatgataca
720
gtgatgacta agtcacagtc cctgcctctg agggccccc atgtgtgccg gacagccaag
780
caaccaata tgttaaaatc cagtgtcagg acccnaggag aag
823

<210> 1488

<211> 149

<212> PRT

<213> Homo sapiens

<400> 1488

Met Leu Gly Arg Ser Cys Glu Gly Lys Phe Arg Lys Asp Leu Ser Glu	
1	15
Gln Val Thr Phe Gln Leu Arg Leu Gly Arg Met Arg Arg Ser Gln Glu	
20	30
Leu Gln Ala Ser Gly Asn Ala Gly Glu Lys Lys His Ser Arg Pro Arg	
35	45
Asp Gln Gln Ser Thr Gly Cys Leu Gly Glu His Thr Ala Ser Glu His	

50 55 60
 Leu Arg Asn Arg Lys Gly Asn Val Thr Lys Leu Pro Gly Ala Val Arg
 65 70 75 80
 Ser Gly Arg Glu Val Gly Ala Arg Ser Trp Gly Arg Arg Gln Thr Ala
 85 90 95
 Leu Pro Pro Ser Ala Pro His Ala Gly Pro Gly Ala Pro Gly Ala Gly
 100 105 110
 Arg Leu Arg Gly Val Ser Ser Cys Lys Trp Pro Ala Phe Gly Ser Ile
 115 120 125
 Ser Pro Phe Ser Trp Gly Leu Gly Glu Ala Gly Ser Glu Gly Arg Met
 130 135 140
 Ala Leu Gly Arg Ala
 145

<210> 1489
 <211> 342
 <212> DNA
 <213> Homo sapiens

<400> 1489
 nncagttca ccgtcaagct ggccgcgcc gccgaacaca atgtgcgcaa tgcgctggcc
 60
 gcgattgcct gcgccgtggg tgccggcatc aaccaggacg ccatcgtgcg cggcctcgaa
 120
 gccttcgccc cggtcggcgg acgtttgcag cgcaagcagg ccgccagcgg cgcgcccgtc
 180
 attgacgaca cccacaaccc caatcccaat tcaatgcgcc cggcgatcga cgtgctggcc
 240
 cgcgtaccgc gcgcgcgcac cctgggtggtg ggcgacatgg gcgaagtcgg cgcacaggga
 300
 aaagaatttc acgaagaaat cggggcttac gcacacacgc gt
 342

<210> 1490
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 1490
 Xaa Gln Phe Thr Val Lys Leu Ala Ala Ala Gly Glu His Asn Val Arg
 1 5 10 15
 Asn Ala Leu Ala Ala Ile Ala Cys Ala Val Gly Ala Gly Ile Asn Gln
 20 25 30
 Asp Ala Ile Val Arg Gly Leu Glu Ala Phe Ala Pro Val Gly Gly Arg
 35 40 45
 Leu Gln Arg Lys Gln Ala Ala Ser Gly Ala Pro Val Ile Asp Asp Thr
 50 55 60
 His Asn Pro Asn Pro Asn Ser Met Arg Pro Ala Ile Asp Val Leu Ala
 65 70 75 80
 Arg Val Pro Ala Pro Arg Ile Leu Val Val Gly Asp Met Gly Glu Val
 85 90 95
 Gly Ala Gln Gly Lys Glu Phe His Glu Glu Ile Gly Ala Tyr Ala His
 100 105 110
 Thr Arg

<210> 1491
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 1491
 ncctcggtgt tctcatagag ggctacggca tcgcgtttga actgttcgga gtacctggac
 60
 atgggggtag attacctttc ttcccagctc gactgggctg gatatcaggt gtccaccaca
 120
 tgggggtcag gtcccactcc caaaggagta gccatcacc acgagtcggc ggtcaatacg
 180
 attgtcgatg tcaacgaacg cctcgggggtg actccgaccg accggatatt ggggatttca
 240
 gagctaaact tcgatctatc ggtatacgac atcttcggga tgttcgcgcg ggggtgctacc
 300
 ttgggtgtgc catctccagc agacaaacgt gat
 333

<210> 1492
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 1492
 Met Gly Val Asp Tyr Leu Ser Ser Gln Leu Asp Trp Ala Gly Tyr Gln
 1 5 10 15
 Val Ser Thr Thr Trp Gly Ser Gly Pro Thr Pro Lys Gly Val Ala Ile
 20 25 30
 Thr His Glu Ser Ala Val Asn Thr Ile Val Asp Val Asn Glu Arg Leu
 35 40 45
 Gly Val Thr Pro Thr Asp Arg Ile Leu Gly Ile Ser Glu Leu Asn Phe
 50 55 60
 Asp Leu Ser Val Tyr Asp Ile Phe Gly Met Phe Ala Arg Gly Ala Thr
 65 70 75 80
 Leu Val Leu Pro Ser Pro Ala Asp Lys Arg Asp
 85 90

<210> 1493
 <211> 1316
 <212> DNA
 <213> Homo sapiens

<400> 1493
 nggtaccagg gcaaagaagg ctgggcccc gcctcctacc taaagaagaa cagtggggag
 60
 cccttgcccc cgaagccagg ccctgggtca ccctcccacc cgggtgccct tgacttggat
 120
 ggtgtttccc ggcagcagaa cgcggtgggc agggagaagg agctgctcag cagccagagg
 180
 gacgggcggt ttgaaggccg cccggtgccc gacggtgacg ccaagcagag atcaccaaag
 240

atgaggcaga gacccccctcc tcgccggggac atgaccattc ctcgaggcct caacctgccg
 300
 aagccgcccc tcccgcccc agtggaggaa gagtattaca ccatcgccga attccagaca
 360
 accatcccag acggcatcag cttccaggca ggcctgaagg tcgaggtgat cgagaaaaac
 420
 ttgagtggct ggtggtacat tcagattgaa gataaggaag ggtgggcccc ggccaccttc
 480
 attgacaagt acaagaagac gagcaacgcg tcgagaccca actttctggc tcccctgccc
 540
 cactgaggtga cccagctccg gctgggggaa gcagcagcgc tggagaacaa cacgggcagc
 600
 gaagccacgg gcccctcccg gcccctgcct gacgcaccgc atggtgtcat ggactcgggg
 660
 ttgccatggt ctaaagactg gaagggcagt aaggatgtcc tgaggaaggc atcttcagac
 720
 atgtctgcgt cagcaggcta cgaggagatc tcagaccccc acatggagga gaagcccagc
 780
 ccccctccgc ggaaagaatc catcatcaag tcggaggggg agctgctgga gcgggagcgg
 840
 gagcggcaga ggacggagca gctccggggc cccactccca agcctccggg cgtgattttg
 900
 ccgatgatgc cagccaaaca catccctcca gcccgggaca gcaggaggcc agagcccaaa
 960
 cctgacaaaa gcagactggt ccagctgaaa aatgacatgg ggctggagtg tggccacaag
 1020
 gtcttgccca aggaagtga gaagcccaac ctccggccca tctccaaatc caaaactgac
 1080
 ctgccagagg agaagccaga tgccactccc cagaatccct tcttgaagtc cagacctcag
 1140
 gttaggccaa aaccagctcc tcccccaaa acggagccac ctcagggcga agaccaagtc
 1200
 gacatctgca acctcaggag taagctcagg cctgccaaat cccaagacaa gtccttggtg
 1260
 gatggggagg gccccaggc agtagggggc caagacgtgg ccttcagccg aagctt
 1316

<210> 1494

<211> 438

<212> PRT

<213> Homo sapiens

<400> 1494

Xaa	Tyr	Gln	Gly	Lys	Glu	Gly	Trp	Ala	Pro	Ala	Ser	Tyr	Leu	Lys	Lys
1				5					10					15	
Asn	Ser	Gly	Glu	Pro	Leu	Pro	Pro	Lys	Pro	Gly	Pro	Gly	Ser	Pro	Ser
			20					25					30		
His	Pro	Gly	Ala	Leu	Asp	Leu	Asp	Gly	Val	Ser	Arg	Gln	Gln	Asn	Ala
			35				40					45			
Val	Gly	Arg	Glu	Lys	Glu	Leu	Leu	Ser	Ser	Gln	Arg	Asp	Gly	Arg	Phe
			50			55				60					
Glu	Gly	Arg	Pro	Val	Pro	Asp	Gly	Asp	Ala	Lys	Gln	Arg	Ser	Pro	Lys
65					70					75				80	
Met	Arg	Gln	Arg	Pro	Pro	Pro	Arg	Arg	Asp	Met	Thr	Ile	Pro	Arg	Gly

1239

ctggaggctg caaggaggat ggcccccatc acggcggacc tacatgctgg gagtccggga
 120
 gagggcaggc cgcggacatg gggcatgtgg cgatgtgttt caccaccac tcccgcctga
 180
 agtgccactg tgagcccaac ccacggtgcc aggctgggct gcactccagg ctctgcagc
 240
 agaccacct cctcagcctc cttcccctga aggctgggca tggcctggac aaaggggtgc
 300
 ctctctgct gtgccatgct gacgtggca
 329

<210> 1496
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 1496
 Met Ala Gln Gln Arg Thr Pro Phe Val Gln Ala Met Pro Ser Leu
 1 5 10 15
 Gln Gly Lys Glu Ala Glu Glu Val Gly Leu Leu Gln Glu Pro Gly Val
 20 25 30
 Gln Pro Ser Leu Ala Pro Trp Val Gly Leu Thr Val Ala Leu Gln Ala
 35 40 45
 Gly Val Gly Gly Glu Thr His Arg His Met Pro His Val Arg Gly Leu
 50 55 60
 Pro Ser Pro Gly Leu Pro Ala Cys Arg Ser Ala Val Met Gly Ala Ile
 65 70 75 80
 Leu Leu Ala Ala Ser Arg Arg Lys Gln Ser Thr Ala Leu Met Glu Asp
 85 90 95
 Glu Val Ala Pro Leu Arg Asp Arg Asp
 100 105

<210> 1497
 <211> 345
 <212> DNA
 <213> Homo sapiens

<400> 1497
 naacttcttg cactcactca ggcgcacggt tggcggccga cttggaagcc gctgcagcac
 60
 ttgacgcggg gcgatctcga agcggttcggt cttggcctga cggtcgatgg ctgcggcgtg
 120
 ccgttgatcg cgcgaatgcg acgggtgggg cagggcgtgc ggccgacacc accgcaagaa
 180
 cgcaactcac ggcagatgaa tctgttttga aacgcaagga agggtaatga caggcaccga
 240
 caagaagcgg atcccgacgc tgctgcgtgt tgagctcact gaacttacg gcccgatcga
 300
 gcagccttac gcgcccgatg cacgtcattc tttcggggcca cgcgt
 345

<210> 1498
 <211> 104
 <212> PRT

<213> Homo sapiens

<400> 1498

Met Thr Cys Ile Gly Arg Val Arg Leu Leu Asp Arg Ala Gly Lys Phe
 1 5 10 15
 Ser Glu Leu Asn Thr Gln Gln Leu Arg Asp Pro Leu Leu Val Gly Ala
 20 25 30
 Cys His Tyr Pro Ser Leu Arg Phe Lys Thr Asp Ser Ser Ala Val Ser
 35 40 45
 Cys Val Leu Ala Val Val Ser Ala Ala Arg Pro Ala Pro Pro Val Ala
 50 55 60
 Phe Ala Arg Ser Thr Ala Arg Arg Ser His Arg Pro Ser Gly Gln Asp
 65 70 75 80
 Arg Thr Leu Arg Asp Arg Pro Ala Ser Ser Ala Ala Ala Ser Lys
 85 90 95
 Ser Ala Ala Asn Arg Ala Pro Glu
 100

<210> 1499

<211> 402

<212> DNA

<213> Homo sapiens

<400> 1499

aaatatattc tgccagagtt tgaacacgac accatgctct ggcatttggg catgtcgggg
 60
 agtttccgtc tatgcgagag caatgaagaa ttacgcaaac atgaccatct aatcattcag
 120
 tttgaagata tcgaactgcg ttatcatgat cctcgccgtt ttggttgcat tctttggctg
 180
 gatgcacaat cacaagcaa attaatagat acgctggggc cagaaccctt aagcgagAAC
 240
 tttaatgcgg agtatttatt tgaaaaattg aagaataaaa aggttggcac caaagttgca
 300
 attatggata accatgtggt ggtgggcgta ggcaatattt atgcgaccga aagtctgttt
 360
 aatctgggga ttcattcagc acaaccggcc tcgactttaa gc
 402

<210> 1500

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1500

Lys Tyr Ile Leu Pro Glu Phe Glu His Asp Thr Met Leu Trp His Leu
 1 5 10 15
 Gly Met Ser Gly Ser Phe Arg Leu Cys Glu Ser Asn Glu Glu Leu Arg
 20 25 30
 Lys His Asp His Leu Ile Ile Gln Phe Glu Asp Ile Glu Leu Arg Tyr
 35 40 45
 His Asp Pro Arg Arg Phe Gly Cys Ile Leu Trp Leu Asp Ala Gln Ser
 50 55 60
 Gln Ser Lys Leu Ile Asp Thr Leu Gly Pro Glu Pro Leu Ser Glu Asn

65 70 75 80
 Phe Asn Ala Glu Tyr Leu Phe Glu Lys Leu Lys Asn Lys Lys Val Gly
 85 90 95
 Thr Lys Val Ala Ile Met Asp Asn His Val Val Val Gly Val Gly Asn
 100 105 110
 Ile Tyr Ala Thr Glu Ser Leu Phe Asn Leu Gly Ile His Pro Ala Gln
 115 120 125
 Pro Ala Ser Thr Leu Ser
 130

<210> 1501

<211> 362

<212> DNA

<213> Homo sapiens

<400> 1501

nnacgcgtgc atgctgcagg catcatccat cgcgatctga agccccaaaa catcttcctg
 60
 gtgccgagcg cgcgcgagcg cgacttcgtg aagatcttcg acttcggcgc atgccagatg
 120
 gtcacaccga aggtatcgaa cggcgtgccc gagctgaaga cgagcgcggg aaatctcttc
 180
 ggcacgggtgc cgtacatggc gccggagtgc ttcgaggacg gctcgcaccg gctggatgcy
 240
 cgcgcggaaca tctactccac gggcatcatc atgtaccgct gcgtgacggg gacgctcccc
 300
 ttcaaggcga acaccgtctt cgagatgctc atccatctgc gcgagggccg cccatcaagc
 360
 tt
 362

<210> 1502

<211> 120

<212> PRT

<213> Homo sapiens

<400> 1502

Xaa Arg Val His Ala Ala Gly Ile Ile His Arg Asp Leu Lys Pro Gln
 1 5 10 15
 Asn Ile Phe Leu Val Pro Ser Ala Arg Glu Arg Asp Phe Val Lys Ile
 20 25 30
 Phe Asp Phe Gly Ala Cys Gln Met Val Thr Pro Lys Val Ser Asn Gly
 35 40 45
 Val Pro Glu Leu Lys Thr Ser Ala Gly Asn Leu Phe Gly Thr Val Pro
 50 55 60
 Tyr Met Ala Pro Glu Cys Phe Glu Asp Gly Ser His Arg Leu Asp Ala
 65 70 75 80
 Arg Ala Asp Ile Tyr Ser Thr Gly Ile Ile Met Tyr Arg Cys Val Thr
 85 90 95
 Gly Thr Leu Pro Phe Lys Ala Asn Thr Val Phe Glu Met Leu Ile His
 100 105 110
 Leu Arg Glu Gly Arg Pro Ser Ser
 115 120

<210> 1503
 <211> 623
 <212> DNA
 <213> Homo sapiens

<400> 1503
 gccggcgtga ggcagagaaa cgtcctcgcc ctgtcattcc accctgaaga gactgacgac
 60
 gaccgggtac accgcacctg gttgcgccag gtgtctgagg aggtctgaca gttaccgcaa
 120
 gggctcatga cgaccctcc tgaacactgt tcaaagggcg acggcttacc attcctcgct
 180
 gtgagtcctg aacagcagct tctcgaatat gaccgacgtc atgtctggca cccctacgcc
 240
 ccgacgatcg gggcagaccc aatgcttgca gtgacggctg ccaacggagt ctggctgcag
 300
 ctgcatgatg gggaacaccg ccacgaggtc atcgatgcga tggcctcgtg gtggtgccag
 360
 attcacggtt accgaaaccc ggtcctcgac gaggccctca accgtcaaag ctcccagttc
 420
 agtcacgtca tgtttggcgg actcaccat aaggccgcgg ttgacgccgt catatcccta
 480
 gtgcgcctgg ccccgggggc cctcgaccgg atcttctcgtg ctgattccgg gtctgtcggc
 540
 gtcgaggtga gtctcaaatt ggctcgtcag gtgcaaatcg ctgcaccgc agcgcgcggc
 600
 ggcactttga cgaggacacg cgt
 623

<210> 1504
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 1504
 Met Thr Thr Pro Pro Glu His Cys Ser Lys Gly Asp Gly Leu Pro Phe
 1 5 10 15
 Leu Ala Val Ser Pro Glu Gln Gln Leu Leu Glu Tyr Asp Arg Arg His
 20 25 30
 Val Trp His Pro Tyr Ala Pro Thr Ile Gly Ala Asp Pro Met Leu Ala
 35 40 45
 Val Thr Ala Ala Asn Gly Val Trp Leu Gln Leu His Asp Gly Glu His
 50 55 60
 Arg His Glu Val Ile Asp Ala Met Ala Ser Trp Trp Cys Gln Ile His
 65 70 75 80
 Gly Tyr Arg Asn Pro Val Leu Asp Glu Ala Leu Asn Arg Gln Ser Ser
 85 90 95
 Gln Phe Ser His Val Met Phe Gly Gly Leu Thr His Lys Ala Ala Val
 100 105 110
 Asp Ala Val Ile Ser Leu Val Arg Leu Ala Pro Gly Pro Leu Asp Arg
 115 120 125
 Ile Phe Leu Ala Asp Ser Gly Ser Val Gly Val Glu Val Ser Leu Lys
 130 135 140
 Leu Ala Arg Gln Val Gln Ile Ala Arg Thr Ala Ala Arg Gly Gly Thr


```
<210> 1505
<211> 556
<212> DNA
<213> Homo sapiens
```

```
<210> 1506
<211> 169
<212> PRT
<213> Homo sapiens
```

1244

130 135 140
 Gly Gln Leu Ala Asp Gly Ile Asp Gln Phe Thr Gly Asn Leu Val Gly
 145 150 155 160
 Tyr Arg Thr Glu Ile Arg Gln Tyr Ala
 165

<210> 1507
 <211> 667
 <212> DNA
 <213> Homo sapiens

<400> 1507
 agatctctta agatgtgctc attatcatga gaacagcgtg gaggaaccca cccccaggat
 60
 ccagttacct ccacttgctc tgccttggc acgtggggct tatggggatt acaattcaag
 120
 gtgagacttg ggtggggaca cagtgggaaca tgaagtgtgc cacgctgggt ggatgacgcc
 180
 ctctccccc cgccaccgag agctgcaggc cacatgattc cttttgggta gcactcggga
 240
 aagggcagaa tgtacaggaa cagagtgaga ttcgcagggc ctggggctga gggaggggac
 300
 gcactagagg aaggcaaagg ggagcctcct ggggtgtggg agcactttct gtcttggttt
 360
 tgggtgtggc tgcacagtgg ccacaccccg tcagagctca cctgcctgca ccagggcctt
 420
 ccgtgcaccc tggcagccca gatgactgca ccagcccagg ggaggtggag gaatgccaca
 480
 cgcaccggta cctggggacc gggggtcctc ggtgatcatc ccgagctcca agacagaagc
 540
 tggactacag ccgtgctgag tggaggggtt tgggtggctgg gtgcccgcct cctattgctc
 600
 ctgcagactc tggggctctg ggcgccccca gtggggcaat gtgggctgct gcagggaact
 660
 cacgcgt
 667

<210> 1508
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 1508
 Met Tyr Arg Asn Arg Val Arg Phe Ala Gly Pro Gly Ala Glu Gly Gly
 1 5 10 15
 Asp Ala Leu Glu Gly Lys Gly Glu Pro Pro Gly Cys Gly Glu His
 20 25 30
 Phe Leu Ser Trp Phe Trp Trp Trp Leu His Ser Gly Pro His Pro Ser
 35 40 45
 Glu Leu Thr Cys Leu His Pro Gly Pro Pro Cys Thr Leu Ala Ala Gln
 50 55 60
 Met Thr Ala Pro Ala Gln Gly Arg Trp Arg Asn Ala Thr Arg Thr Gly
 65 70 75 80
 Thr Trp Gly Pro Gly Val Leu Gly Asp His Pro Glu Leu Gln Asp Arg

85 90 95
 Ser Trp Thr Thr Ala Val Leu Ser Gly Gly Val Trp Trp Leu Gly Ala
 100 105 110
 Arg Leu Leu Leu Leu Gln Thr Leu Gly Ser Arg Ala Pro Pro Val
 115 120 125
 Gly Gln Cys Gly Leu Leu Gln Gly Thr His Ala
 130 135

<210> 1509
 <211> 463
 <212> DNA
 <213> Homo sapiens

<400> 1509
 tgatcagagt ggctgagcaa cttgctcaag atcacagttt cagaagtacg ctctaagctg
 60
 ggtctggctg actccaaagt tgtggctttt gttggttttc ttgttctgtc gcgttttaga
 120
 aagggttagg aaccgagcac tgggcgttgg gcttactctc ctctatggt gacctgggag
 180
 tgggtcccaa ggcgtctct tcccagcacc tcagggtcct cactggtaaa ggagggagtg
 240
 attggaatgt cgccaaagt acttggtctt ggaattctgt ggctattcac gtggactctg
 300
 gatggcggtc accaagtaga agagggggccc tgggatagag agaagtctcc tctcctgctc
 360
 ctgatttccc aggcctctcc ctctcctggc cctccctcct ttcttccact tccccggatt
 420
 cccttcgagt ttggttgcaa ctttaatttt nngttccgat tca
 463

<210> 1510
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 1510
 Met Val Thr Trp Glu Trp Cys Pro Arg Arg Ser Leu Pro Ser Thr Ser
 1 5 10 15
 Gly Ser Ser Leu Val Lys Glu Gly Val Ile Gly Met Ser Pro Lys Leu
 20 25 30
 Leu Gly Ser Gly Ile Leu Trp Leu Phe Thr Trp Thr Leu Asp Gly Gly
 35 40 45
 His Gln Val Glu Glu Gly Pro Trp Asp Arg Glu Lys Ser Pro Leu Leu
 50 55 60
 Leu Leu Ile Ser Gln Ala Ser Pro Ser Pro Gly Pro Pro Ser Phe Leu
 65 70 75 80
 Pro Leu Pro Arg Ile Pro Phe Glu Phe Gly Cys Asn Phe Asn Phe Xaa
 85 90 95
 Phe Arg Phe

<210> 1511
 <211> 633

<212> DNA

<213> Homo sapiens

<400> 1511

gccggcaccg gcgtcaaggc catggcgctg ggcccgggat gggtagacac cgaattccac
 60
 tcacgcgccca acgtcaccgg caaccatctg ccggactttt tctggatcga cgccgaagtt
 120
 ctggtacgcg aggtctctcaa cgaccttgac catgacaagg tagtatccat tcctaccccg
 180
 ctctggaagt tcttcacgcg agtggccaca cataccccac gttccgctat gagattcctg
 240
 tcacgaactc tgtcctcgtc tcgagacaag gacgaccatc ctcgacacac tccggggaggc
 300
 gaggcctgag atggccagcg tcaaaccac taaggaccgg ggccgggtaca ccaatgatct
 360
 gtccgccgcg acgcggcagg cagcgaacat gcttctgctg cgtcctttgg tgtggaaagt
 420
 cgtcaaagtg agcgtccacg gagccgacaa cctcgacggg ctcgacggtg ccttacgctg
 480
 ccgtcgctaa ccattcctcc cacctcgacg cgccgctcgt ttttggggcc cttcccaagc
 540
 ggctgtcaaa gtacctagct accggggccg ctgctgacta tttcttcacc gtctggtgga
 600
 aggccatcgc tccggtgctc ttcttcaacg cgt
 633

<210> 1512

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1512

Ala	Gly	Thr	Gly	Val	Lys	Ala	Met	Ala	Leu	Gly	Pro	Gly	Trp	Val	His
1				5					10					15	
Thr	Glu	Phe	His	Ser	Arg	Ala	Asn	Val	Thr	Gly	Asn	His	Leu	Pro	Asp
			20					25					30		
Phe	Phe	Trp	Ile	Asp	Ala	Glu	Val	Leu	Val	Arg	Glu	Ala	Leu	Asn	Asp
		35					40					45			
Leu	Asp	His	Asp	Lys	Val	Val	Ser	Ile	Pro	Thr	Pro	Leu	Trp	Lys	Phe
	50					55					60				
Phe	Ile	Ala	Val	Ala	Thr	His	Thr	Pro	Arg	Ser	Ala	Met	Arg	Phe	Leu
65					70					75				80	
Ser	Arg	Thr	Leu	Ser	Ser	Ser	Arg	Asp	Lys	Asp	Asp	His	Pro	Arg	His
			85					90						95	
Thr	Pro	Gly	Gly	Glu	Ala										
			100												

<210> 1513

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1513

acgcgtgaag ggggtggaatt tcaccacaga ggggacgccg gggttcctgt tcagaaatat
 60
 ttggctgtcc aatctcgtaa tgcccttctg aatgacttgc tgggcctgcc tcctgacacg
 120
 gctgtttcgc aggaaccgcc actcccgttc cttgcggatc tgactctcca ggtcgtgctc
 180
 ttctgggata ttcattgacgg gctgggtaaa atagccgggc gtcacagtcg cagaaccccg
 240
 tctgcaccgt ggcggagatg aaacttttgt gtccagcagc atcgtccgcg tcgtccgcag
 300
 tctgctctgg gcccttgtcg aacatcttcc gtgtccgggg gaactggtgg gagtgagggg
 360
 tgtactgcgc ccagcgggg cctgtggtgc ccggccggcc g
 401

<210> 1514

<211> 108

<212> PRT

<213> Homo sapiens

<400> 1514

Met	Phe	Asp	Lys	Gly	Pro	Glu	Gln	Thr	Ala	Asp	Asp	Ala	Asp	Ala	
1				5					10				15		
Ala	Gly	His	Lys	Ser	Phe	Ile	Ser	Ala	Thr	Val	Gln	Thr	Gly	Phe	Cys
			20					25				30			
Asp	Trp	Ser	Ala	Arg	Leu	Phe	Tyr	Pro	Ala	Arg	His	Glu	Asp	Pro	Arg
		35					40				45				
Arg	Ala	Arg	Pro	Gly	Glu	Ser	Asp	Pro	Gln	Gly	Ala	Gly	Val	Ala	Val
	50					55				60					
Pro	Ala	Lys	Gln	Pro	Cys	Gln	Glu	Ala	Gly	Pro	Ala	Ser	His	Ser	Glu
65					70				75					80	
Gly	His	Tyr	Glu	Ile	Gly	Arg	Pro	Asn	Ile	Ser	Glu	Gln	Glu	Pro	Arg
			85					90						95	
Arg	Pro	Leu	Cys	Gly	Glu	Ile	Pro	Pro	Leu	His	Ala				
		100						105							

<210> 1515

<211> 720

<212> DNA

<213> Homo sapiens

<400> 1515

nnggacccctg accgcggcat gaggttcaac cctgccaaagc tattgctcga cccttatgcc
 60
 agggccatca cggcaggagt cgattatcac ggcccgatta tggaccacac gccggaatcc
 120
 aactacgagc ctgacctgac cgacgatgcg acgtcggtec cgctcgccgt cgtcattgac
 180
 gatcccggcc cgcctacgcc tattgcgcgc cgccacgaca tcagcgaatc gggcatctat
 240
 gagacccatg tcaaagggct aaccgcctt caccacctcg ttccctgagca tcttcgcagc
 300
 acctatgccg ggcttgccca tccggctgtt atcgaacacc tcaagtcaat cggagtaaca
 360

gccatcgaac tactaccggt ccagcagttc gtctccgaac cattcatcgt tgggcgcggc
 420
 ttatccgatt actgggggtta caacaccctg gggttctttg cgccgcatgc tgcctactgc
 480
 tccgtcggct cgatgggaac ccaggtgcgc gagttcaagg acatgggtgac gtctttccac
 540
 gaagccggca tcgaggtttt cctcgatgtc gtctacaacc aactgggtga gggcggccat
 600
 gaaggaccga ctctgtcttt ccgcggcatc gatcacgagt cttattaccg cctcaccaac
 660
 gatcaccgca atgactatga cgtcaccggt tgtggcaatt ctgtcgacac ctcccatccg
 720

<210> 1516

<211> 240

<212> PRT

<213> Homo sapiens

<400> 1516

Xaa	Asp	Pro	Asp	Arg	Gly	Met	Arg	Phe	Asn	Pro	Ala	Lys	Leu	Leu	Leu
1				5					10					15	
Asp	Pro	Tyr	Ala	Arg	Ala	Ile	Thr	Ala	Gly	Val	Asp	Tyr	His	Gly	Pro
			20					25					30		
Ile	Met	Asp	His	Thr	Pro	Glu	Ser	Asn	Tyr	Glu	Pro	Asp	Leu	Thr	Asp
		35					40					45			
Asp	Ala	Thr	Ser	Val	Pro	Leu	Ala	Val	Val	Ile	Asp	Asp	Pro	Gly	Pro
	50					55				60					
Pro	Thr	Pro	Ile	Ala	Arg	Arg	His	Asp	Ile	Ser	Glu	Ser	Gly	Ile	Tyr
65				70					75					80	
Glu	Thr	His	Val	Lys	Gly	Leu	Thr	Arg	Leu	His	Pro	Leu	Val	Pro	Glu
			85					90					95		
His	Leu	Arg	Ser	Thr	Tyr	Ala	Gly	Leu	Ala	Tyr	Pro	Ala	Val	Ile	Glu
		100					105						110		
His	Leu	Lys	Ser	Ile	Gly	Val	Thr	Ala	Ile	Glu	Leu	Leu	Pro	Val	Gln
	115					120					125				
Gln	Phe	Val	Ser	Glu	Pro	Phe	Ile	Val	Gly	Arg	Gly	Leu	Ser	Asp	Tyr
	130					135				140					
Trp	Gly	Tyr	Asn	Thr	Leu	Gly	Phe	Phe	Ala	Pro	His	Ala	Ala	Tyr	Cys
145				150					155					160	
Ser	Val	Gly	Ser	Met	Gly	Thr	Gln	Val	Arg	Glu	Phe	Lys	Asp	Met	Val
			165					170					175		
Thr	Ser	Phe	His	Glu	Ala	Gly	Ile	Glu	Val	Phe	Leu	Asp	Val	Val	Tyr
		180					185						190		
Asn	His	Thr	Gly	Glu	Gly	Gly	His	Glu	Gly	Pro	Thr	Leu	Ser	Phe	Arg
	195					200						205			
Gly	Ile	Asp	His	Glu	Ser	Tyr	Tyr	Arg	Leu	Thr	Asn	Asp	His	Arg	Asn
	210					215				220					
Asp	Tyr	Asp	Val	Thr	Gly	Cys	Gly	Asn	Ser	Val	Asp	Thr	Ser	His	Pro
225				230						235					240

<210> 1517

<211> 497

<212> DNA

<213> Homo sapiens

<400> 1517

nnacgcgtga aggggggttcg ggaggaggac gccctgctgg agaacgggag ccagagcaac
60
gaaagtgacg acgtcagcac agaccgtggc cctgcgccac cttccccgct caaggagacc
120
tccttttcca tcgggctgca agtactgttt ccattcctcc tggcaggctt tgggaccgtg
180
gctgctggca tgggtgttga catcgtgcag cactgggaag tcttccagaa ggtgacagag
240
gtcttcatcc tagtgctgc gctgctgggg ctcaaaggga acctggaaat gaccctggca
300
tcaaggcttt ccaactgcagc caacattgga cacatggaca cacccaagga gctctggcgg
360
atgatcactg ggaacatggc cctcatccag gtgcaggccc cggtggtggg cttcctggcg
420
tccatcgcag ccgtcgtctt tggctggatc cctgatggcc acttcagtat tccgcacgcc
480
ttcctgctct gtggtag
497

<210> 1518

<211> 165

<212> PRT

<213> Homo sapiens

<400> 1518

Xaa	Arg	Val	Lys	Gly	Val	Arg	Glu	Glu	Asp	Ala	Leu	Leu	Glu	Asn	Gly
1				5					10					15	
Ser	Gln	Ser	Asn	Glu	Ser	Asp	Asp	Val	Ser	Thr	Asp	Arg	Gly	Pro	Ala
			20					25					30		
Pro	Pro	Ser	Pro	Leu	Lys	Glu	Thr	Ser	Phe	Ser	Ile	Gly	Leu	Gln	Val
		35					40					45			
Leu	Phe	Pro	Phe	Leu	Leu	Ala	Gly	Phe	Gly	Thr	Val	Ala	Ala	Gly	Met
	50					55				60					
Val	Leu	Asp	Ile	Val	Gln	His	Trp	Glu	Val	Phe	Gln	Lys	Val	Thr	Glu
65				70						75				80	
Val	Phe	Ile	Leu	Val	Pro	Ala	Leu	Leu	Gly	Leu	Lys	Gly	Asn	Leu	Glu
			85						90					95	
Met	Thr	Leu	Ala	Ser	Arg	Leu	Ser	Thr	Ala	Ala	Asn	Ile	Gly	His	Met
			100					105					110		
Asp	Thr	Pro	Lys	Glu	Leu	Trp	Arg	Met	Ile	Thr	Gly	Asn	Met	Ala	Leu
		115					120					125			
Ile	Gln	Val	Gln	Ala	Pro	Val	Val	Gly	Phe	Leu	Ala	Ser	Ile	Ala	Ala
	130					135					140				
Val	Val	Phe	Gly	Trp	Ile	Pro	Asp	Gly	His	Phe	Ser	Ile	Pro	His	Ala
145					150					155				160	
Phe	Leu	Leu	Cys	Gly											
				165											

<210> 1519

<211> 2076

<212> DNA

<213> Homo sapiens

<400> 1519
nnagatcttt gggggattca acgagtggaa aatgcacgat ttctttcacc agaagaaaat
60
gtgtgcaatg agatgttggg aaaatcccag tttgttgctt gtatggctac ttgtcattca
120
cttacaaaaa ttgaaggagt gctctctggg gatccacttg atctgaaaat gtttgaggct
180
attggatgga ttctggaaga agcaactgaa gaagaaacag cacttcataa tcgaattatg
240
cccacagtgg ttcgtcctcc caaacaactg cttcctgaat ctacccttgc aggaaaccaa
300
gaaatggagc tgtttgaact tccagctact tatgagatag gaattgttcg ccagttccca
360
ttttcttctg ctttgcaacg tatgagtgtg gttgccaggg tgctggggga taggaaaatg
420
gacgcctaca tgaaggggagc gcccagggcc attgccggtc tctgtaaacc tgaaacagtt
480
cctgtcgatt ttcaaaacgt tttggaagac ttcactaaac agggcttccg tgtgattgct
540
cttgcacaca gaaaattgga gtcaaaactg acatggcata aagtacagaa tattagcaga
600
gatgcaattg agaacaacat ggattttatg ggattaatta taatgcagaa caaattaaag
660
caagaaaccc ctgcagtact tgaagatttg cataaagcca acattcgac cgtcatggtc
720
acaggtgaca gtatgttgac tgctgtctct gtggccagag attgtggaat gattctacct
780
caggataaag tgattattgc tgaagcatta cctccaaagg atgggaaagt tgccaaaata
840
aattggcatt atgcagactc cctcacgcag tgcagtcac catcagcaat tgaccagag
900
gctattccgg ttaaattggg ccatgatagc ttagaggatc ttcaaattgac tcgttatcat
960
tttgcaatga atggaaaatc attctcagtg atactggagc attttcaaga ccttgttcct
1020
aagttgatgt tgcatggcac cgtgtttgcc cgtatggcac ctgatcagaa gacacagttg
1080
atagaagcat tgcaaaatgt tgattatttt gttgggatgt gtggtgatgg cgcaaatgat
1140
tgtggtgctt tgaagagggc acacggaggc atttccttat cggagctcga agcttcagtg
1200
gcatctccct ttacctctaa gactcctagt atttcctgtg tgccaaacct tatcagggaa
1260
ggccgtgctg ctttaataac ttccttctgt gtgtttaaat tcatggcatt gtacagcatt
1320
atccagtact tcagtgttac tctgctgtat tctatcttaa gtaacctagg agacttcag
1380
tttctcttca ttgatctggc aatcattttg gtagtggtat ttacaatgag tttaaatcct
1440
gcctggaaag aacttggtgc acaaagacca ccttcgggtc ttatatctgg ggcccttctc
1500
ttctccgtt tgtctcagat tatcatctgc attggatttc aatctttggg ttttttttgg
1560

gtcaaacagc aaccttggtg tgaagtgtgg catccaaaat cagatgcttg taatacaaca
 1620
 ggaagcgggt tttggaattc ttcacacgta gacaatgaaa ccgaacttga tgaacataat
 1680
 atacaaaatt atgaaaatac cacagtgttt tttattttcca gttttcagta cctcatagtg
 1740
 gcaattgcct tttcaaaagg aaaacccttc aggcaacctt gctacaaaaa ttattttttt
 1800
 gttttttctg tgattttttt atatattttt atattattca tcatgttgta tccagttgcc
 1860
 tctgttgacc aggttcttca gatagtgtgt gtaccatata agtggcgtgt aactatgctc
 1920
 atcattgttc ttgtcaatgc ctttgtgtct atcacagtgg agaacttctt ccttgacatg
 1980
 gtccctttgga aagtgtgtgt caaccgagac aaacaaggag agtatcgggt cagcaccaca
 2040
 cagccaccgc aggagtcagt ggatcgggtg ggaaaa
 2076

<210> 1520

<211> 692

<212> PRT

<213> Homo sapiens

<400> 1520

Xaa	Asp	Leu	Trp	Gly	Ile	Gln	Arg	Val	Glu	Asn	Ala	Arg	Phe	Leu	Ser
1				5					10					15	
Pro	Glu	Glu	Asn	Val	Cys	Asn	Glu	Met	Leu	Val	Lys	Ser	Gln	Phe	Val
			20					25					30		
Ala	Cys	Met	Ala	Thr	Cys	His	Ser	Leu	Thr	Lys	Ile	Glu	Gly	Val	Leu
		35					40					45			
Ser	Gly	Asp	Pro	Leu	Asp	Leu	Lys	Met	Phe	Glu	Ala	Ile	Gly	Trp	Ile
	50					55				60					
Leu	Glu	Glu	Ala	Thr	Glu	Glu	Glu	Thr	Ala	Leu	His	Asn	Arg	Ile	Met
65					70				75					80	
Pro	Thr	Val	Val	Arg	Pro	Pro	Lys	Gln	Leu	Leu	Pro	Glu	Ser	Thr	Pro
				85				90						95	
Ala	Gly	Asn	Gln	Glu	Met	Glu	Leu	Phe	Glu	Leu	Pro	Ala	Thr	Tyr	Glu
		100						105					110		
Ile	Gly	Ile	Val	Arg	Gln	Phe	Pro	Phe	Ser	Ser	Ala	Leu	Gln	Arg	Met
	115						120					125			
Ser	Val	Val	Ala	Arg	Val	Leu	Gly	Asp	Arg	Lys	Met	Asp	Ala	Tyr	Met
	130					135					140				
Lys	Gly	Ala	Pro	Glu	Ala	Ile	Ala	Gly	Leu	Cys	Lys	Pro	Glu	Thr	Val
145				150					155					160	
Pro	Val	Asp	Phe	Gln	Asn	Val	Leu	Glu	Asp	Phe	Thr	Lys	Gln	Gly	Phe
			165					170						175	
Arg	Val	Ile	Ala	Leu	Ala	His	Arg	Lys	Leu	Glu	Ser	Lys	Leu	Thr	Trp
		180					185					190			
His	Lys	Val	Gln	Asn	Ile	Ser	Arg	Asp	Ala	Ile	Glu	Asn	Asn	Met	Asp
	195					200					205				
Phe	Met	Gly	Leu	Ile	Ile	Met	Gln	Asn	Lys	Leu	Lys	Gln	Glu	Thr	Pro
	210					215					220				
Ala	Val	Leu	Glu	Asp	Leu	His	Lys	Ala	Asn	Ile	Arg	Thr	Val	Met	Val

225					230					235				240
Thr	Gly	Asp	Ser	Met	Leu	Thr	Ala	Val	Ser	Val	Ala	Arg	Asp	Cys Gly
				245					250					255
Met	Ile	Leu	Pro	Gln	Asp	Lys	Val	Ile	Ile	Ala	Glu	Ala	Leu	Pro Pro
			260					265					270	
Lys	Asp	Gly	Lys	Val	Ala	Lys	Ile	Asn	Trp	His	Tyr	Ala	Asp	Ser Leu
		275					280					285		
Thr	Gln	Cys	Ser	His	Pro	Ser	Ala	Ile	Asp	Pro	Glu	Ala	Ile	Pro Val
	290				295						300			
Lys	Leu	Val	His	Asp	Ser	Leu	Glu	Asp	Leu	Gln	Met	Thr	Arg	Tyr His
305					310					315				320
Phe	Ala	Met	Asn	Gly	Lys	Ser	Phe	Ser	Val	Ile	Leu	Glu	His	Phe Gln
			325						330					335
Asp	Leu	Val	Pro	Lys	Leu	Met	Leu	His	Gly	Thr	Val	Phe	Ala	Arg Met
			340					345					350	
Ala	Pro	Asp	Gln	Lys	Thr	Gln	Leu	Ile	Glu	Ala	Leu	Gln	Asn	Val Asp
		355					360					365		
Tyr	Phe	Val	Gly	Met	Cys	Gly	Asp	Gly	Ala	Asn	Asp	Cys	Gly	Ala Leu
	370					375					380			
Lys	Arg	Ala	His	Gly	Gly	Ile	Ser	Leu	Ser	Glu	Leu	Glu	Ala	Ser Val
385					390					395				400
Ala	Ser	Pro	Phe	Thr	Ser	Lys	Thr	Pro	Ser	Ile	Ser	Cys	Val	Pro Asn
			405						410					415
Leu	Ile	Arg	Glu	Gly	Arg	Ala	Ala	Leu	Ile	Thr	Ser	Phe	Cys	Val Phe
			420					425					430	
Lys	Phe	Met	Ala	Leu	Tyr	Ser	Ile	Ile	Gln	Tyr	Phe	Ser	Val	Thr Leu
		435					440					445		
Leu	Tyr	Ser	Ile	Leu	Ser	Asn	Leu	Gly	Asp	Phe	Gln	Phe	Leu	Phe Ile
	450					455					460			
Asp	Leu	Ala	Ile	Ile	Leu	Val	Val	Val	Phe	Thr	Met	Ser	Leu	Asn Pro
465					470					475				480
Ala	Trp	Lys	Glu	Leu	Val	Ala	Gln	Arg	Pro	Pro	Ser	Gly	Leu	Ile Ser
			485						490					495
Gly	Ala	Leu	Leu	Phe	Ser	Val	Leu	Ser	Gln	Ile	Ile	Ile	Cys	Ile Gly
			500					505					510	
Phe	Gln	Ser	Leu	Gly	Phe	Phe	Trp	Val	Lys	Gln	Gln	Pro	Trp	Tyr Glu
	515						520					525		
Val	Trp	His	Pro	Lys	Ser	Asp	Ala	Cys	Asn	Thr	Thr	Gly	Ser	Gly Phe
	530					535						540		
Trp	Asn	Ser	Ser	His	Val	Asp	Asn	Glu	Thr	Glu	Leu	Asp	Glu	His Asn
545					550					555				560
Ile	Gln	Asn	Tyr	Glu	Asn	Thr	Thr	Val	Phe	Phe	Ile	Ser	Ser	Phe Gln
			565						570					575
Tyr	Leu	Ile	Val	Ala	Ile	Ala	Phe	Ser	Lys	Gly	Lys	Pro	Phe	Arg Gln
			580				585						590	
Pro	Cys	Tyr	Lys	Asn	Tyr	Phe	Phe	Val	Phe	Ser	Val	Ile	Phe	Leu Tyr
		595				600						605		
Ile	Phe	Ile	Leu	Phe	Ile	Met	Leu	Tyr	Pro	Val	Ala	Ser	Val	Asp Gln
	610					615					620			
Val	Leu	Gln	Ile	Val	Cys	Val	Pro	Tyr	Gln	Trp	Arg	Val	Thr	Met Leu
625					630					635				640
Ile	Ile	Val	Leu	Val	Asn	Ala	Phe	Val	Ser	Ile	Thr	Val	Glu	Asn Phe
			645						650				655	
Phe	Leu	Asp	Met	Val	Leu	Trp	Lys	Val	Val	Phe	Asn	Arg	Asp	Lys Gln

660 665 670
 Gly Glu Tyr Arg Phe Ser Thr Thr Gln Pro Pro Gln Glu Ser Val Asp
 675 680 685
 Arg Trp Gly Lys
 690

<210> 1521
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 1521
 acgcgtcaca gctgaagccc gcagtgatag ccgacgcaca agccgaatca ataacttgtg
 60
 tctgcacgcg ctgggcctca acgagtagtt cagcaaaagt aggcggaaca ggcgcaacga
 120
 gcgtaccatc cgatacacgc cagccttgac tgctgatata cccagccac tgcgcatcag
 180
 tgatttcaat ggcgggtaca cagtctggta tcggactgtc gatatcatcg taataggcga
 240
 tcacattccc atttgcacg tatgctgcga acttttgacc catgattatt atttcccga
 300
 tgcaaaccaa taaacagtgt tggcgcttga tgaatagccg ttctgcacca cggcggtaga
 360
 gagtggcgtc gac
 373

<210> 1522
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 1522
 Met Gly Gln Lys Phe Ala Ala Tyr Asp Ala Asn Gly Asn Val Ile Ala
 1 5 10 15
 Tyr Tyr Asp Asp Ile Asp Ser Pro Ile Pro Asp Cys Val Thr Ala Ile
 20 25 30
 Glu Ile Thr Asp Ala Gln Trp Leu Gly Cys Ile Ser Ser Gln Gly Trp
 35 40 45
 Arg Val Ser Asp Gly Thr Leu Val Ala Pro Val Pro Pro Thr Phe Ala
 50 55 60
 Glu Leu Leu Val Glu Ala Gln Arg Val Gln Thr Gln Val Ile Asp Ser
 65 70 75 80
 Ala Cys Ala Ser Ala Ile Thr Ala Gly Phe Ser Cys Asp Ala
 85 90

<210> 1523
 <211> 525
 <212> DNA
 <213> Homo sapiens

<400> 1523
 nnacgcgtgc ggtcaatatg ccgccattcc cataagcgct tgggtggcatg tttccagggc
 60

cagcatggca ccgatgccga gaggagacac aaaaaactgc ctctgacagc tcttgctcaa
 120
 aatatgcaag aagcatcgac tcagctggaa gactctctcc tggggaagat gctggagacg
 180
 tgtggagatg ctgagaatca gctggctctc gagctctccc agcacgaagt ctttgttgag
 240
 aaggagatcg tggacctctt gtacggcata gctgaggtgg agattcccaa catccagaag
 300
 cagaggaagc agcttgcaag attggtgtta gactgggatt cagtcagagc caggtggaac
 360
 caagctcaca aatcctcagg aaccaacttt caggggcttc catcaaaaat agatactcta
 420
 aaggaagga tggatgaagc tggaaataaa gtagaacagt gcaaggatca acttgcagca
 480
 gacatgtaca actttatggc caaagaaggg gagtatggca aattt
 525

<210> 1524
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 1524
 Xaa Arg Val Arg Ser Ile Cys Arg His Ser His Lys Arg Leu Val Ala
 1 5 10 15
 Cys Phe Gln Gly Gln His Gly Thr Asp Ala Glu Arg Arg His Lys Lys
 20 25 30
 Leu Pro Leu Thr Ala Leu Ala Gln Asn Met Gln Glu Ala Ser Thr Gln
 35 40 45
 Leu Glu Asp Ser Leu Leu Gly Lys Met Leu Glu Thr Cys Gly Asp Ala
 50 55 60
 Glu Asn Gln Leu Ala Leu Glu Leu Ser Gln His Glu Val Phe Val Glu
 65 70 75 80
 Lys Glu Ile Val Asp Pro Leu Tyr Gly Ile Ala Glu Val Glu Ile Pro
 85 90 95
 Asn Ile Gln Lys Gln Arg Lys Gln Leu Ala Arg Leu Val Leu Asp Trp
 100 105 110
 Asp Ser Val Arg Ala Arg Trp Asn Gln Ala His Lys Ser Ser Gly Thr
 115 120 125
 Asn Phe Gln Gly Leu Pro Ser Lys Ile Asp Thr Leu Lys Glu Gly Met
 130 135 140
 Asp Glu Ala Gly Asn Lys Val Glu Gln Cys Lys Asp Gln Leu Ala Ala
 145 150 155 160
 Asp Met Tyr Asn Phe Met Ala Lys Glu Gly Glu Tyr Gly Lys Phe
 165 170 175

<210> 1525
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 1525
 gtgcacgagc gcatggatct catccgccaa agcgtggatg cgcgcatataa cgtggactac
 60

tgggtccggcc tgctcgtgga ctatacctcg cagcacggcg tcgacgtttt ggtcaagggg
 120
 ctgcgttctt ccctggacta tgaatatgaa ctgccgatgg cccagatgaa ccggcggttta
 180
 tctggcatcg atacgggtctt tttgcttacc gatgaaaagt acggctacat cagctcatcg
 240
 ctgtgcaaac aggtcgcgca attcggcggt gaggtcaccg ggatgcttcg gatc
 294

<210> 1526

<211> 98

<212> PRT

<213> Homo sapiens

<400> 1526

Val	His	Glu	Arg	Met	Asp	Leu	Ile	Arg	Gln	Ser	Val	Asp	Ala	Arg	Ile
1				5				10					15		
Asn	Val	Asp	Tyr	Trp	Ser	Gly	Leu	Leu	Val	Asp	Tyr	Thr	Ser	Gln	His
			20				25					30			
Gly	Val	Asp	Val	Leu	Val	Lys	Gly	Leu	Arg	Ser	Ser	Leu	Asp	Tyr	Glu
		35				40					45				
Tyr	Glu	Leu	Pro	Met	Ala	Gln	Met	Asn	Arg	Arg	Leu	Ser	Gly	Ile	Asp
	50				55					60					
Thr	Val	Phe	Leu	Leu	Thr	Asp	Glu	Lys	Tyr	Gly	Tyr	Ile	Ser	Ser	Ser
65				70					75				80		
Leu	Cys	Lys	Gln	Val	Ala	Gln	Phe	Gly	Gly	Glu	Val	Thr	Gly	Met	Leu
			85					90					95		

Arg Ile

<210> 1527

<211> 371

<212> DNA

<213> Homo sapiens

<400> 1527

tgtacaaacc cgcctatgag caagtgcaaa ccaacatgga aatgctcaag gccggacgca
 60
 gcttcaagga atacgccgag atggcctgga agattcccga gcattacaaa aacaaccgct
 120
 acttcgccct ggtgcacggg gttggcatga ccggcgagta cccttgggtg gtgcaccgcg
 180
 aagacattga cgcgctgggt tacgacgggtg tgttcgaggc cggcatgacc atctgtgtgg
 240
 aaagctacat cggccacgac gacggcgggc aaggcgtgaa gctcgaagaa cagatctaca
 300
 tccacgaaca cagcatcgag ttgctctccg attatccgtt cgacccacgc ctgttgccgc
 360
 gctgaacgcg t
 371

<210> 1528

<211> 109

<212> PRT

<213> Homo sapiens

<400> 1528

```

Met Glu Met Leu Lys Ala Gly Arg Ser Phe Lys Glu Tyr Ala Glu Met
 1           5           10           15
Ala Trp Lys Ile Pro Glu His Tyr Lys Asn Asn Arg Tyr Phe Ala Leu
      20           25           30
Val His Gly Val Gly Met Thr Gly Glu Tyr Pro Trp Val Val His Arg
      35           40           45
Glu Asp Ile Asp Ala Leu Gly Tyr Asp Gly Val Phe Glu Ala Gly Met
      50           55           60
Thr Ile Cys Val Glu Ser Tyr Ile Gly His Asp Asp Gly Gly Glu Gly
      65           70           75           80
Val Lys Leu Glu Glu Gln Ile Tyr Ile His Glu His Ser Ile Glu Leu
      85           90           95
Leu Ser Asp Tyr Pro Phe Asp Pro Arg Leu Leu Pro Arg
      100           105

```

<210> 1529

<211> 609

<212> DNA

<213> Homo sapiens

<400> 1529

```

naccgctggt gctcaccctc cgtgtgactc gcgctctgtc cggctcaggg ctgcacctcc
60
gtgggacttg cgctctgtcc ggctcagggc tcgccctccg tgggacttgc gctctgtccg
120
gctcaggggt cgccctccgt gggacttgcg ctctgtccgg ctccagggctc gccctccgtg
180
ggacttgccg tctgtccggc tcagggctcg ccctccgtgg gacttgcgct ctgtccggct
240
cagggctcgc cctccgtggg acttgccgctc tgtccggctc agggctcgcc ctccgtggga
300
tttgcgtct gtctggctca ggctgcgcag ggcaatggag gaacctcccg agcaggccca
360
gcggctcctt ccaccagcc cccatctccg gccggccatt tgtgaggccc tctgccactg
420
aggtgcactg ttccaattc ctcattcaca agctctacct tccacgagcc cagagcatga
480
acgcattcgg ccattggtct caccactctg cgaggagcac agcctcttct ccaccgtcca
540
atagcgtggt cctcctttcc caggcctcac agaattgctt gtccgcatcc tcccagcatt
600
ccattcacg
609

```

<210> 1530

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1530

```

Leu Ala Leu Cys Pro Ala Gln Gly Ser Pro Ser Val Gly Leu Ala Leu

```



```

      1           5           10           15
Cys Pro Ala Gln Gly Ser Pro Ser Val Gly Leu Ala Leu Cys Pro Ala
      20           25           30
Gln Gly Ser Pro Ser Val Gly Leu Ala Leu Cys Pro Ala Gln Gly Ser
      35           40           45
Pro Ser Val Gly Leu Ala Leu Cys Pro Ala Gln Gly Ser Pro Ser Val
      50           55           60
Gly Leu Ala Leu Cys Pro Ala Gln Gly Ser Pro Ser Val Gly Leu Ala
      65           70           75           80
Leu Cys Pro Ala Gln Gly Ser Pro Ser Val Gly Phe Ala Leu Cys Leu
      85           90           95
Ala Gln Ala Ala Gln Gly Asn Gly Gly Thr Ser Arg Ala Gly Pro Ala
      100           105           110
Ala Pro Ser Thr Gln Pro Pro Ser Pro Ala Gly His Leu
      115           120           125

```

<210> 1531

<211> 726

<212> DNA

<213> Homo sapiens

<400> 1531

```

accggtcgcc ggcttgctga gggtaacctt ctggccacag ttggtgatgg tgataggtcc
60
agcgttggac tgggacgccg acgctgaaaa agaagctgac gagtccttgg gggcgcccgc
120
acattcggca agcatgagga cggggagcat cgagaccgcg acagctcggc gaaggaattt
180
cggggtggca ggcattggca aactagcttt ctgtgatcgg cgtgcgcggc cgggcaacaa
240
cagggcgctg tcaggtggtc ttggggctcg acttcgtctc cgttcccggc accttcccag
300
tgcgcatggc caggtgggtc aagtcggggc ggatcagtca taccgctgcg ctcagctccg
360
gcttttcacc ggattccagc gctgggtgtg tcaccagcaa cctgacgcga ggatttttagc
420
accccttcg cataccgcta tccagggcct ccacgacagc ggcaccgatg acgatcgctg
480
tcaccgagcg cggcgttttc ggcagcttcc acatggggat cagaccatat tgatgcactg
540
gcgatccctt catacgcgag ccgccgatat ggcccccgag tgaggcccct cagttcgcgc
600
tgacgcatgc cgctctgcgc agcctgccaa cgctttcccg caacctcacc acacgtttgc
660
cggggttcggg gctggcgacg tgagccgtgt cacaagttca cgagctggct caccgctccg
720
cgagag
726

```

<210> 1532

<211> 178

<212> PRT

<213> Homo sapiens

<400> 1532

Met Val Ile Gly Pro Ala Leu Asp Trp Asp Ala Asp Ala Glu Lys Glu
 1 5 10 15
 Ala Asp Glu Ser Leu Gly Ala Pro Ala His Ser Ala Ser Met Arg Thr
 20 25 30
 Gly Ser Ile Glu Thr Ala Thr Ala Arg Arg Arg Asn Phe Gly Val Ala
 35 40 45
 Gly Met Ala Lys Leu Ala Phe Cys Asp Arg Arg Ala Arg Pro Gly Asn
 50 55 60
 Asn Arg Ala Ser Ser Gly Gly Leu Arg Ala Arg Leu Arg Leu Arg Ser
 65 70 75 80
 Arg His Leu Pro Ser Ala His Gly Gln Val Val Gln Val Gly Ala Asp
 85 90 95
 Gln Ser Tyr Arg Cys Ala Gln Leu Arg Leu Phe Thr Gly Phe Gln Arg
 100 105 110
 Trp Cys Gly His Gln Gln Pro Asp Ala Arg Ile Leu Ala Pro Pro Ser
 115 120 125
 His Thr Ala Ile Gln Gly Leu His Asp Ser Gly Thr Asp Asp Asp Arg
 130 135 140
 Val His Arg Ala Arg Arg Phe Arg Gln Leu Pro His Gly Asp Gln Thr
 145 150 155 160
 Ile Leu Met His Trp Arg Ser Leu His Thr Arg Ala Ala Asp Met Ala
 165 170 175
 Pro Glu

<210> 1533

<211> 364

<212> DNA

<213> Homo sapiens

<400> 1533

natatgctgg tcgatcatgt gcatcagatc gtccagtggc cggagcgcgg ctggctggcg
 60
 gagattattc acagcgaacg ggcgaccggc ggtgcgccgc ttaacgtcct gctgacgctg
 120
 gttaaaatgc acgtcggctt gccgttgacg gcggtcggtc ttatcggcga agacagcgat
 180
 ggcgattaca ttatggcgat gctcgaccag taccacgtca atcgccagcg ggtacagcgc
 240
 accacgtttg ccccccacgtc gatgtcgcag gtgatgaccg atcccactgg gcagcgcacc
 300
 tttttccatt cgcctgccgc caatcgctg ctcgatctcc ccgcctttga tcgactcgac
 360
 gcgt
 364

<210> 1534

<211> 121

<212> PRT

<213> Homo sapiens

<400> 1534

Xaa Met Leu Val Asp His Val His Gln Ile Val Gln Trp Pro Glu Arg


```

      1           5           10           15
Gly Trp Leu Ala Glu Ile Ile His Ser Glu Arg Ala Thr Gly Gly Ala
      20           25           30
Pro Leu Asn Val Leu Leu Thr Leu Val Lys Met His Val Gly Leu Pro
      35           40           45
Leu Gln Ala Val Gly Leu Ile Gly Glu Asp Ser Asp Gly Asp Tyr Ile
      50           55           60
Met Ala Met Leu Asp Gln Tyr His Val Asn Arg Gln Arg Val Gln Arg
      65           70           75           80
Thr Thr Phe Ala Pro Thr Ser Met Ser Gln Val Met Thr Asp Pro Thr
      85           90           95
Gly Gln Arg Thr Phe Phe His Ser Pro Ala Ala Asn Arg Leu Leu Asp
      100           105           110
Leu Pro Ala Phe Asp Arg Leu Asp Ala
      115           120

```

<210> 1535

<211> 369

<212> DNA

<213> Homo sapiens

<400> 1535

```

gaattcgggg ggctccggga atgaagtttc catttcgcaa gccttctgaa gcaaattccgc
60
caatccctgg ggcccgcggt gcgtgccggc cagcggccag tcctggcccg gaatgatcca
120
ctcgatatct tcggcagaca acgccagcag accgggccta tcgccgcggc ccatggctgc
180
aaaaaaactc ttcacagtct ggacattccc ttgtgtgctc atcgaaatct ctccatgtcc
240
tttacctggg atcgtgtccg atctcatcgg acgcgttgag gacctgctgg tgaggacggg
300
gtgtcggtga ttcagccgat atcgactttg catggcgatg tcccagctgc cggagccggt
360
actggccac
369

```

<210> 1536

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1536

```

Met Gln Ser Arg Tyr Arg Leu Asn His Arg His Pro Val Leu Thr Ser
1           5           10           15
Arg Ser Ser Thr Arg Pro Met Arg Ser Asp Thr Ile Pro Gly Lys Gly
      20           25           30
His Gly Glu Ile Ser Met Ser Thr Gln Gly Asn Val Gln Thr Val Lys
      35           40           45
Ser Phe Phe Ala Ala Met Gly Arg Gly Asp Arg Pro Gly Leu Leu Ala
      50           55           60
Leu Ser Ala Glu Asp Ile Glu Trp Ile Ile Pro Gly Gln Asp Trp Pro
      65           70           75           80
Leu Ala Gly Thr His Arg Gly Pro Gln Gly Leu Ala Asp Leu Leu Gln

```


1261

caggctgctc agccaggggc aggagaaggt gggtcaggct ccccggggac ctcaggccct
 240
 gacgcaccc ggcctcacc taggcctcct ctgtcggggc agcctggctc agcagagccc
 300
 gggacacacg gctgaggcca cccaggctgg gccatcttgc ccctgttttg tgccccctac
 360
 tcagttctcc ttctgtcctg gctcaggctt aggccagtca agaggggtggc tgagaagcag
 420
 gaggagcctc agagaccctc ccctcgaaag cactggggct tccacctcac aagcggcagg
 480
 ttcgctttgg gagctgctgg tccatcgccc aggcctggcc aggggcaggc gaggatcctg
 540
 gttgccgac catcgctccag gcctggccca ggagccggtg aggaacctgg ggctgttgtg
 600
 caggggctgc cgtctccagc tctctgccgt ggtgagggga ttgtgctgtg tgcacaccac
 660
 ctggctgcat cgaatccac catggcccag aggggtggacc tgtggctcct tggggggcca
 720
 gcatccccag tctaattgggt gcccctgcc ctctcctgag tccccgtgca gagctcccc
 780
 caacacctca gccttcacct ttctcagtta atcaaaagat tccaaaaaaa gcaaaccat
 840
 cagaacggct tctccaccg agtggtcagg ataaataatc atgtccagtc aaggccagag
 900
 cagcccggat gacatgctat gaacaggttt taggtgggtg acagggcact gaggccgact
 960
 gccttgggtg tcagccacat ctgttgagat gcgtgtgcct gacgcccga cgcgt
 1015

<210> 1540

<211> 89

<212> PRT

<213> Homo sapiens

<400> 1540

His	Pro	Arg	Gln	Ser	Ala	Ser	Val	Pro	Cys	His	Pro	Pro	Arg	Thr	Cys
1				5					10					15	
Ser	Gln	His	Val	Ile	Arg	Ala	Ala	Leu	Ala	Leu	Thr	Gly	His	Asp	Tyr
			20					25					30		
Leu	Ser	Leu	His	Thr	Val	Ala	Ala	Leu	Gln	Ala	Lys	Lys	Gln	Ala	Ala
		35				40						45			
Gln	Pro	Gly	Ser	Gly	Glu	Gly	Gly	Ser	Gly	Ser	Pro	Gly	Thr	Ser	Gly
	50				55					60					
Pro	Asp	Ala	Ser	Trp	Pro	His	Pro	Arg	Pro	Pro	Leu	Ser	Gly	Gln	Pro
65				70					75					80	
Gly	Ser	Ala	Glu	Pro	Gly	Thr	His	Gly							
				85											

<210> 1541

<211> 1482

<212> DNA

<213> Homo sapiens

<400> 1541

cgccgatcac ggggagcccc tcgactgcct cccagaacaa agtgggaaag ggaagcttag
60
cccgcgctg ccgcctccga gcagcccgc aggactctgg ctactggaga tgggcgcccg
120
gctatcgagg cgacgggtgc cggcggaccc gtccctggcc ctggacgcgc tgccccgga
180
gctgctgggtg cagggtgctga gccacgtgcc ggccacgctc cttggacacg cgatgccgcc
240
cagtgtgccg cgccctgggc gacatagtgg acgggcccac tgggaggctg ctgcaactgg
300
cccgcgaccg cagcgccgag ggccgagcac tctacgcagt ggctcaacgc tgccctgcca
360
acaacgaaga caaagaggag ttcccgtgtg gcgccctggc gcgctactga ctgcgcgcgc
420
ccttcggccc caatctcatc ttcaactcct gcggagagca gggcttcaga ggctgggagg
480
tggagcatgg cgggaacggc tgggccatag aaaagaacct aacaccgggtg cctggggctc
540
cttcgcagac ctgcttcgtg acctctttcg aatgggtgctc caagaggcag cttgtggacc
600
tggatgatga aggggtgtgg caggagctgc tggacagcgc ccagattgag atctgtgtgg
660
ctgactgggtg gggcgctcga gagaactgcg gctgcgtcta ccagctccgg gtccgccttc
720
tggatgtgta tgaaaaggaa gtggtcaagt tctcagcctc acctgaccg gtccttcagt
780
ggactgagag gggctgccga caggctctccc acgtcttcac caactttggc aagggcattc
840
gctacgtatc ttttgagcag tacgggagag acgtgagttc ctgggtgggg cactatggcg
900
cccttgtgac ccactccagt gtgagggcca ggatccgtct gtcctagcga ctggactact
960
gcctgacgtt gtcagtcaag accagccttg cagccagggtg cagtggctca cacctgtggg
1020
atcctcccac tttggccttc caaaatgttg cgattatagg cgtgagccac tgtggctggc
1080
ctgaaatctt ctagtatcca cattcataaa gtaaaaagaa aataaaaagg catagaatgt
1140
caagctaacc aggcgtccgc tacttcagaa gagtgtactg tcgcatgggg agtctgtaac
1200
catgttttc acttccactg catctctcgc tggctcaaaa cacgacagggt gtgtccattg
1260
gacaacagag agtgggaatt ccaaaagtat gggcactagg aaaagacttc ttccatcaag
1320
cttaattgtt ttgttattca tttaatgact ttccctgctg ttacctaatt acaaattgga
1380
tggaactgtg tttttttctg ctttgttttt tcagtttgct gtttctgtag ccatattgta
1440
ttctgtgtca aataaagtc agttggattc tggaaaaaaa aa
1482

<210> 1542

<211> 57

<212> PRT

<213> Homo sapiens

<400> 1542

Lys Gly Ile Glu Cys Gln Ala Asn Gln Ala Ser Ala Thr Ser Glu Glu
 1 5 10 15
 Cys Thr Val Ala Trp Gly Val Cys Asn His Ala Phe His Phe His Cys
 20 25 30
 Ile Ser Arg Trp Leu Lys Thr Arg Gln Val Cys Pro Leu Asp Asn Arg
 35 40 45
 Glu Trp Glu Phe Gln Lys Tyr Gly His
 50 55

<210> 1543

<211> 311

<212> DNA

<213> Homo sapiens

<400> 1543

gctagcgatg ctactttaag gtatgcgaag ttggatgctg acgttgccctc ctatcggttg
 60
 gagtcaaacy gacgaacaag cgttcgaggt agctttaaat gcgggacgacg ccagaaagtt
 120
 accaaagtgc gtgccgcgcc ttatgtttct cgaatggctc acgcgccgag gctacttgct
 180
 ccacggctcg agccgagccg acctcgtttg ttttgaacct cgagcaccca aagacttcag
 240
 ccctgacgag ttcagcaaac gcaccgccgt tttcgccctc tcagatgggg tgtggccccc
 300
 cncnccccnc c
 311

<210> 1544

<211> 96

<212> PRT

<213> Homo sapiens

<400> 1544

Met Arg Ser Trp Met Leu Thr Leu Pro Pro Ile Gly Trp Ser Gln Thr
 1 5 10 15
 Asp Glu Gln Ala Phe Glu Val Ala Leu Asn Ala Gly Asp Ala Arg Lys
 20 25 30
 Leu Pro Lys Ser Val Pro Arg Leu Met Phe Leu Glu Trp Leu Thr Arg
 35 40 45
 Arg Gly Tyr Leu Leu His Gly Ser Ser Arg Ala Asp Leu Val Cys Phe
 50 55 60
 Glu Pro Arg Ala Pro Lys Asp Phe Ser Pro Asp Glu Phe Ser Lys Arg
 65 70 75 80
 Thr Ala Val Phe Ala Ser Ser Asp Gly Val Trp Pro Pro Xaa Xaa Xaa
 85 90 95

<210> 1545

<211> 362

<212> DNA

<213> Homo sapiens

<400> 1545
 ccatggtgcg gccgtctggt aacgataggc aaatccttgc catgccacca attcttcctt
 60
 caacagtagt tggcgaatcc ttcgatggtc aagtcctgtg agcttgctca tctgacggat
 120
 cgtctctgtc tcaagcacct cgcctgtttc caggttcaag gcctggatag tgcgagtgtc
 180
 gtactgggtcg atcacttcca ccgagtggtc tgggtagccc cttgccattc gctttatgat
 240
 ctcaaccata gatgcatttg gcatgttcca gagcttgtag tccttaacga tctctctggc
 300
 gtctagataa accttcacgc tatcgtcagg atgggtcact gtggtgatgt accgtccaga
 360
 ac
 362

<210> 1546
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 1546
 Met Val Lys Ser Cys Glu Leu Ala His Leu Thr Asp Arg Leu Cys Leu
 1 5 10 15
 Lys His Leu Ala Cys Phe Gln Val Gln Gly Leu Asp Ser Ala Ser Val
 20 25 30
 Val Leu Val Asp His Phe His Arg Val Val Trp Val Ala Pro Cys His
 35 40 45
 Ser Leu Tyr Asp Leu Asn His Arg Cys Ile Trp His Val Pro Glu Leu
 50 55 60
 Val Leu Leu Asn Asp Leu Ser Gly Val Val Glu Asn Leu His Ala Ile
 65 70 75 80
 Val Arg Met Gly His Cys Gly Asp Val Pro Ser Arg
 85 90

<210> 1547
 <211> 429
 <212> DNA
 <213> Homo sapiens

<400> 1547
 cgcgttgcca caccggaaga cccggccagc tcacgcctgg gtgaaagttt ctgggcggtc
 60
 ctgccgcgtt cgggtgtggt cagcgccgtg tcggcgtgga acctggagcg cgagcgccgt
 120
 cgcaaactcg gcctgccggc ctggcactgg aagaacgccg tgctcagtgc ctggatgtac
 180
 agcgtgggtg tgtggggggg gatgattgtc tgggtgggcg cggcgggtgat tccgttctcg
 240
 atcattcagg gtgtctacgg gttctcgttg ctggaagtgg tcaactacgt cgagcactac
 300
 gggcttaaac gccagaagtt gcccaacggt cgttatgaac ggtgttcgcc tcggcactcg
 360

tggaacagca accggattgt caccaatata tttctgttcc aacttcagcg gcattccgac
 420
 caccatgcc
 429

<210> 1548
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 1548
 Arg Val Ala Thr Pro Glu Asp Pro Ala Ser Ser Arg Leu Gly Glu Ser
 1 5 10 15
 Phe Trp Ala Phe Leu Pro Arg Ser Val Trp Phe Ser Ala Val Ser Ala
 20 25 30
 Trp Asn Leu Glu Arg Glu Arg Leu Arg Lys Leu Gly Leu Pro Ala Trp
 35 40 45
 His Trp Lys Asn Ala Val Leu Ser Ala Trp Met Tyr Ser Val Val Leu
 50 55 60
 Trp Gly Val Met Ile Val Trp Leu Gly Ala Ala Val Ile Pro Phe Leu
 65 70 75 80
 Ile Ile Gln Gly Val Tyr Gly Phe Ser Leu Leu Glu Val Val Asn Tyr
 85 90 95
 Val Glu His Tyr Gly Leu Lys Arg Gln Lys Leu Pro Asn Gly Arg Tyr
 100 105 110
 Glu Arg Cys Ser Pro Arg His Ser Trp Asn Ser Asn Arg Ile Val Thr
 115 120 125
 Asn Ile Phe Leu Phe Gln Leu Gln Arg His Ser Asp His His Ala
 130 135 140

<210> 1549
 <211> 443
 <212> DNA
 <213> Homo sapiens

<400> 1549
 gtcgacaggc tccagggttc tgttttgtag tgcacccgct gtggtgcaac atgcgtctgg
 60
 gcacaccagc gtcgcccgtt tcctgttgta gtctttcctc tctgactcca ggggtattgg
 120
 gtctttctgc cagcgcccat gcaactttgg cagcctggcc tgtctgctgg taagtggggc
 180
 agaatccctg cactccacca ttcttgggca acactccctc taggattttg gtctccctt
 240
 tctctctggt ctttgaccac cgctaccag caaactcctc catctagacc agccagcatt
 300
 gggtttcttc actccccag ctgccgctg ggaggcgcca ctgcaaaactt ccctggggtc
 360
 tccagctgc tcagagatcc ccatgccctt cctgatcag ctccctgccc gggtctcctc
 420
 ccgacgcggc tgcattgata ttc
 443

<210> 1550


```

<400> 1552
Met Asp Thr Pro Pro Leu Ala Leu Asn Met Thr Trp Leu Pro His Thr
  1                    5                10                15
Arg Lys Pro Gln Arg Ser Ser Gln Leu Ala Lys His Pro Cys Pro Cys
      20                    25                30
Pro Ala Gly Ser Thr Lys Ala Gly Gly Ala Asn Ala Ala His Leu Phe

```



```

      35          40          45
Phe Cys Pro Leu Leu Gln Gly Leu Pro Leu Cys Phe Gly Asp Gly Thr
  50          55          60
Lys Val Arg Glu Leu Pro Asp Thr Pro Ser Gln Gly Glu Asp Gly Ser
  65          70          75          80
Ser Phe Leu His Leu Val Leu Thr Gln Pro Pro Gln Glu Thr Arg Gly
      85          90          95
Ile Pro Xaa Pro Xaa
      100

```

<210> 1553

<211> 657

<212> DNA

<213> Homo sapiens

<400> 1553

```

atcctgcaga atgatggcgt ggtcaccagc ccctattccc ggccacgcaa ggcggggccac
  60
acgctactca tcttgggggg ccagaccttc atgtgtgaca agatctacca ggtggaccac
  120
aaggccaagg agatcatccc caaggccgac ctgcccagcc cccggaagga gttagcgcc
  180
tcagcgatcg gctgcaaggt ctatgtgacg gggggcaggg gctccgagaa cggggtctcc
  240
aaggatgtct ggggtgtacga caccgtacat gaggaatggt ccaaggcggc gcccatgctg
  300
attgcccgct ttggccatgg cttagctgag ctggagaact gcctctatgt ggtgggggga
  360
cacacatccc tggcaggggt cttcccggcc tcgccttctg tctccctgaa acaagtggag
  420
aaatacgacc ctggggccaa caagtggatg atggtggccc ccttgcgga tggcgtagc
  480
aatgccgcag tgggtgagtgc caagctgaag ctctttgttt ttggaggaac cagcatccac
  540
cgggacatgg tgtccaaggt ccagtgtat gaccctcgg agaacaggtg gacgatcaag
  600
gccgagtgcc cccagccttg gcggtacaca gccgctgccg tcttgggcag ccagatc
  657

```

<210> 1554

<211> 219

<212> PRT

<213> Homo sapiens

<400> 1554

```

Ile Leu Gln Asn Asp Gly Val Val Thr Ser Pro Tyr Ser Arg Pro Arg
  1          5          10          15
Lys Ala Gly His Thr Leu Leu Ile Leu Gly Gly Gln Thr Phe Met Cys
      20          25          30
Asp Lys Ile Tyr Gln Val Asp His Lys Ala Lys Glu Ile Ile Pro Lys
      35          40          45
Ala Asp Leu Pro Ser Pro Arg Lys Glu Phe Ser Ala Ser Ala Ile Gly
      50          55          60
Cys Lys Val Tyr Val Thr Gly Gly Arg Gly Ser Glu Asn Gly Val Ser

```



```

65              70              75              80
Lys Asp Val Trp Val Tyr Asp Thr Val His Glu Glu Trp Ser Lys Ala
              85              90              95
Ala Pro Met Leu Ile Ala Arg Phe Gly His Gly Ser Ala Glu Leu Glu
              100              105              110
Asn Cys Leu Tyr Val Val Gly Gly His Thr Ser Leu Ala Gly Val Phe
              115              120              125
Pro Ala Ser Pro Ser Val Ser Leu Lys Gln Val Glu Lys Tyr Asp Pro
              130              135              140
Gly Ala Asn Lys Trp Met Met Val Ala Pro Leu Arg Asp Gly Val Ser
145              150              155              160
Asn Ala Ala Val Val Ser Ala Lys Leu Lys Leu Phe Val Phe Gly Gly
              165              170              175
Thr Ser Ile His Arg Asp Met Val Ser Lys Val Gln Cys Tyr Asp Pro
              180              185              190
Ser Glu Asn Arg Trp Thr Ile Lys Ala Glu Cys Pro Gln Pro Trp Arg
              195              200              205
Tyr Thr Ala Ala Ala Val Leu Gly Ser Gln Ile
              210              215

```

<210> 1555

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1555

```

acgcgtggga gctcgggaga gaggactctg cttctggggg ttgaagggtga gcgtgattct
60
ggaggagcct gccttgccgc gagcgtgtgt tgtggagagg atgcaggaca tgagtgatcc
120
tgtaaggggtg atcgagtgtg cctcgtgaag tctggaagtc agcgagtgtg ggccgtggag
180
gtgagccacc ggtttgtgat ttgaaactga gtgagagtgc tgtggagcgc gaaatatgtg
240
tgtgtgtaga gtggaggtga gcgaatttgt gtgcatgtga gacggacgca atggcagagt
300
gtagcatcct gtgttgggat tgggattn
328

```

<210> 1556

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1556

```

Met Leu His Ser Ala Ile Ala Ser Val Ser His Ala His Lys Phe Ala
1      5      10      15
His Leu His Ser Thr His Thr His Ile Ser Arg Ser Thr Ala Leu Ser
20     25     30
Leu Ser Phe Lys Ser Gln Thr Gly Ser Pro Pro Arg Pro Thr Leu
35     40     45
Ala Asp Phe Gln Thr Ser Arg Gly Thr Leu Asp His Pro Tyr Arg Ile
50     55     60
Thr His Val Leu His Pro Leu His Asn Thr Arg Ser Pro Gln Gly Arg

```



```
<210> 1559
<211> 556
<212> DNA
<213> Homo sapiens
```


<400> 1559

accggtggcg acggtatcgg tggcgcgctcg atccttgccct cggaatcctt cgctgcagag
 60
 ggtgagtcga agcgacccag cgtccagggtg ggcgacccgt tcatggagaa gctgctcatc
 120
 gagtgcaccc ttgacctctt caacgccggg gtagttgagg ccttgcagga tttcggtgcc
 180
 gccggaatct cctgtgccac ctccgagctg gccagtgtg gcgacggtgg catgcacgtc
 240
 gagctcgacc gcgttccgct gcgcgacccg aacctcgccc ctgaagagat cctcatgagc
 300
 gagtcccagg agcggatggc cgcggtggtg cgcgccgac agcttgaccg cttcatggag
 360
 atctgcgccc attgggggtgt cgctgccact gtcattggcg aggtcaccga caccggtcga
 420
 cttcacattg attggcaggg cgagcggatt gtcgacgtcg atccgcgac ggttgctcac
 480
 gacggaccgg ttctcgacat gccggccgcc cgtccgtggt ggattgatga gctcaacgag
 540
 aacgacgcta acgcgt
 556

<210> 1560

<211> 185

<212> PRT

<213> Homo sapiens

<400> 1560

Thr	Gly	Gly	Asp	Gly	Ile	Gly	Gly	Ala	Ser	Ile	Leu	Ala	Ser	Glu	Ser
1				5					10					15	
Phe	Ala	Ala	Glu	Gly	Glu	Ser	Lys	Arg	Pro	Ser	Val	Gln	Val	Gly	Asp
			20					25					30		
Pro	Phe	Met	Glu	Lys	Leu	Leu	Ile	Glu	Cys	Thr	Leu	Asp	Leu	Phe	Asn
		35					40					45			
Ala	Gly	Val	Val	Glu	Ala	Leu	Gln	Asp	Phe	Gly	Ala	Ala	Gly	Ile	Ser
	50					55				60					
Cys	Ala	Thr	Ser	Glu	Leu	Ala	Ser	Ala	Gly	Asp	Gly	Gly	Met	His	Val
65					70					75				80	
Glu	Leu	Asp	Arg	Val	Pro	Leu	Arg	Asp	Pro	Asn	Leu	Ala	Pro	Glu	Glu
			85					90						95	
Ile	Leu	Met	Ser	Glu	Ser	Gln	Glu	Arg	Met	Ala	Ala	Val	Val	Arg	Pro
			100					105						110	
Asp	Gln	Leu	Asp	Arg	Phe	Met	Glu	Ile	Cys	Ala	His	Trp	Gly	Val	Ala
	115						120					125			
Ala	Thr	Val	Ile	Gly	Glu	Val	Thr	Asp	Thr	Gly	Arg	Leu	His	Ile	Asp
	130					135				140					
Trp	Gln	Gly	Glu	Arg	Ile	Val	Asp	Val	Asp	Pro	Arg	Thr	Val	Ala	His
145					150					155				160	
Asp	Gly	Pro	Val	Leu	Asp	Met	Pro	Ala	Ala	Arg	Pro	Trp	Trp	Ile	Asp
			165					170						175	
Glu	Leu	Asn	Glu	Asn	Asp	Ala	Asn	Ala							
		180					185								

<210> 1561
 <211> 466
 <212> DNA
 <213> Homo sapiens

<400> 1561
 acgcgtgaaa ggtttgagag aagagagatg ccgctattga atctgctgga gttttacatc
 60
 ccaagatgaa gacagcattc agaattgatg tgatttcctt gaatgtggct taggaaatgt
 120
 ggacacttaa aactctcact tgaaattggg cacaggtttg atgtagagat aaggacgggg
 180
 tgcggaatgg agaccattt tgcattgat tcattctgacc gataaggcca tagtgcatgt
 240
 aggtgatatt cgaaagcttc ttgatgctc tttatgtata tgttggagg aactaccagg
 300
 cgttgcttta aattcccaat gtgttgcttc gttactacta atttaatacc gtaagctcta
 360
 ggtaaagttc catgttggtg aactctgact gttctctttg gaattgaacg ttttgcattc
 420
 tcctcctgtg gctttaggtc tgacattgta tttgacctt actagt
 466

<210> 1562
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 1562
 Met Ser Asp Leu Lys Pro Gln Glu Glu Asp Ala Lys Arg Ser Ile Pro
 1 5 10 15
 Lys Arg Thr Val Arg Val Gln Gln His Gly Thr Leu Pro Arg Ala Tyr
 20 25 30
 Gly Ile Lys Leu Val Val Thr Lys Gln His Ile Gly Asn Leu Lys Gln
 35 40 45
 Arg Leu Val Val Pro Ser Asn Ile Tyr Ile Lys Ser Ile Lys Glu Ala
 50 55 60
 Phe Glu Tyr His Leu Thr Ala Leu Trp Pro Tyr Arg Ser Asp Glu Ser
 65 70 75 80
 Met Thr Lys Trp Val Ser Ile Pro His Pro Val Leu Ile Ser Thr Ser
 85 90 95
 Asn Leu Cys Pro Ile Ser Ser Glu Ser Phe Lys Cys Pro His Phe Leu
 100 105 110
 Ser His Ile Gln Gly Asn His Ile Asn Ser Glu Cys Cys Leu His Leu
 115 120 125
 Gly Met
 130

<210> 1563
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 1563

ctgggggggtg tgttcggcct gctgtcgggtg tacttgccgc gttggctgca tgaaacaccg
 60
 atcttcgctg agatgcagca gcgcaaaacc ctggctgccc agttgccatt gcgcgcggta
 120
 ttgcgtgacc accgtggcgc catcgtgctg tcgatgctgt tgacgtgggtt gctgtcggcg
 180
 ggtgtgggtt tggtcatcct gatgaccccg accgtgctgc aaaccgtcta ccacttcage
 240
 ccgacgggtt cgctgcaagc caacagcctg gcgatcgta cgctgagcct gggctgcatt
 300
 gcgtccggcg cgctggctga ccgttttggg gccggtcgcg ttttggtcac cggttggcgt
 360
 tgctgtggc cacttcctgg acgctgtatc acagcctgat ggcccagacg gaatgggtga
 420
 ataagtgtac gcgt
 434

<210> 1564

<211> 132

<212> PRT

<213> Homo sapiens

<400> 1564

Leu	Gly	Gly	Val	Phe	Gly	Leu	Leu	Ser	Val	Tyr	Leu	Pro	Arg	Trp	Leu
1				5					10					15	
His	Glu	Thr	Pro	Ile	Phe	Ala	Glu	Met	Gln	Gln	Arg	Lys	Thr	Leu	Ala
			20					25					30		
Ala	Glu	Leu	Pro	Leu	Arg	Ala	Val	Leu	Arg	Asp	His	Arg	Gly	Ala	Ile
		35					40					45			
Val	Leu	Ser	Met	Leu	Leu	Thr	Trp	Leu	Leu	Ser	Ala	Gly	Val	Val	Val
		50				55				60					
Val	Ile	Leu	Met	Thr	Pro	Thr	Val	Leu	Gln	Thr	Val	Tyr	His	Phe	Ser
65				70					75					80	
Pro	Thr	Val	Ala	Leu	Gln	Ala	Asn	Ser	Leu	Ala	Ile	Val	Thr	Leu	Ser
			85				90						95		
Leu	Gly	Cys	Ile	Ala	Ser	Gly	Ala	Leu	Ala	Asp	Arg	Phe	Gly	Ala	Gly
		100					105						110		
Arg	Val	Leu	Val	Thr	Gly	Trp	Arg	Cys	Cys	Trp	Pro	Leu	Pro	Gly	Arg
		115				120						125			
Cys	Ile	Thr	Ala												
		130													

<210> 1565

<211> 373

<212> DNA

<213> Homo sapiens

<400> 1565

ccatggtcgt agcccttggt tcaacaagag ccgtctactg acgctaaccc accatgagcc
 60
 agagggtgag cggttctggc acctactgga ccatgaaagc aataaagagg acaagggagc
 120
 ctgcattcgg ccatttcttc ccaagaatca ccataaaggt tgtcaaaatc aaggaccctg
 180

atccggtgat tctcgaagtc atcgatgagc agaacaagtt tacccccgag ggagaaaagc
 240
 ggggtggtgct cttgatgctc gacaacctct accgtcccag taccaccgt gcattggcga
 300
 acgggggctg cccttatctg cggtcgaaga gtgtcactgt tgacctcgta gacagccggg
 360
 acaacacggg tac
 373

<210> 1566

<211> 106

<212> PRT

<213> Homo sapiens

<400> 1566

Met	Ser	Gln	Arg	Val	Ser	Gly	Ser	Gly	Thr	Tyr	Trp	Thr	Met	Lys	Ala
1				5					10					15	
Ile	Lys	Arg	Thr	Arg	Glu	Pro	Ala	Phe	Gly	His	Phe	Phe	Pro	Arg	Ile
			20					25					30		
Thr	Ile	Lys	Val	Val	Lys	Ile	Lys	Asp	Pro	Asp	Pro	Val	Ile	Leu	Glu
		35				40						45			
Val	Ile	Asp	Glu	Gln	Asn	Lys	Phe	Thr	Pro	Glu	Gly	Glu	Lys	Arg	Val
	50				55						60				
Val	Leu	Leu	Met	Leu	Asp	Asn	Leu	Tyr	Arg	Pro	Ser	Thr	His	Arg	Ala
65				70					75					80	
Leu	Ala	Asn	Gly	Gly	Val	Pro	Tyr	Leu	Arg	Ser	Lys	Ser	Val	Thr	Val
			85					90						95	
Asp	Leu	Val	Asp	Ser	Arg	Asp	Asn	Thr	Gly						
			100					105							

<210> 1567

<211> 917

<212> DNA

<213> Homo sapiens

<400> 1567

agcttttttcg accgctgaag gagggtggata cccgctcccc agacactccc tttctagggg
 60
 aagccgctgc actcctgggg gaccagttt gatgcctcca ggaggataag tctgaagccg
 120
 gggtgggaag ggagcggaga ggcccaaaca gacgagcagg cagcgccctc tgctggcacc
 180
 ctggagacag cttcggctgc ggggcccctg ctttctagtc ctccccagct ttcaggacac
 240
 cttgacaacc tggggctcct gcagaagtgg cccggctgtc cccaagtct cctgaagcta
 300
 tctgggtagg gtgggaggca gtgctgtgag ccacaaatgc aaagcagagg ggacagatgt
 360
 tgggactcaa agacatgagg tagagctggc cccatgggta ggtgccacca ccagagccca
 420
 tgaggcttcg tgttctagaa ggtggtgggt tagtgccgca ctgagggcgt gtccgggagg
 480
 gagcatgtgt caccagggct caggaaacag catgagtcac gacgcggggg tgtttaaggc
 540

attcgtgccca cagcgggggac ctcggagcta tgccttgata aggcaagtga ggttacatgt
 600
 acgatgatgc ggtttgtgct gcagactgga aaaaagcagg ggctttgtcc tctcctgacc
 660
 ccctcacact ctgccttcac ggtaggctcc tgagaggggg gtctccaagg aggggtgtcag
 720
 tactgcagct tcagctggcg tggatgggggt gcttacagga gcagcagggc tgagggagat
 780
 gacagcagta cgaatcgtgg ctctcctgag gcctgggttt cctcatatgt aaaatggggg
 840
 ttgcattaga ccataccctt ggctgtgtt taggcaaata gggatgaaag tggggccaag
 900
 ggctgaagag ctgggtc
 917

<210> 1568

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1568

Met	Gly	Pro	Ala	Leu	Pro	His	Val	Phe	Glu	Ser	Gln	His	Leu	Ser	Pro
1				5					10					15	
Leu	Leu	Cys	Ile	Cys	Gly	Ser	Gln	His	Cys	Leu	Pro	Pro	Tyr	Pro	Asp
			20				25						30		
Ser	Phe	Arg	Arg	Leu	Gly	Gly	Gln	Pro	Gly	His	Phe	Cys	Arg	Asp	Pro
		35				40					45				
Arg	Leu	Ser	Arg	Cys	Pro	Glu	Ser	Trp	Gly	Gly	Leu	Glu	Gly	Arg	Gly
	50				55						60				
Pro	Ala	Ala	Glu	Ala	Val	Ser	Arg	Val	Pro	Ala	Glu	Gly	Ala	Ala	Cys
65				70					75					80	
Cys	Ser	Val	Trp	Ala	Ser	Pro	Leu	Pro	Ser	Gln	Pro	Gly	Phe	Arg	Leu
			85				90						95		
Ile	Leu	Leu	Glu	Ala	Ser	Asn	Trp	Val	Pro	Gln	Glu	Cys	Ser	Gly	Phe
			100				105						110		
Pro															

<210> 1569

<211> 379

<212> DNA

<213> Homo sapiens

<400> 1569

ggagggcctg tgattctact gcaggcaggc acccccaca acctcacatg ccgggccttc
 60
 aatggaagc ctgctgccac catcatctgg ttccgggacg ggacgcagca ggagggcgct
 120
 gtggccagca cggaattgct gaaggatggg aagagggaga ccaccgtgag ccaactgctt
 180
 attaacccca cggacctgga catagggcgt gtcttcactt gccgaagcat gaacgaagcc
 240
 atccctagtg gcaaggagac ttccatcgag ctggatgtgc accaccctcc tacagtgacc
 300

ctgtccattg agccacagac ggtgcaggag ggtgagcgtg ttgtctttac ctgccaggcc

360

acagccaacc cggagatct

379

<210> 1570

<211> 126

<212> PRT

<213> Homo sapiens

<400> 1570

Gly	Gly	Pro	Val	Ile	Leu	Leu	Gln	Ala	Gly	Thr	Pro	His	Asn	Leu	Thr
1				5				10						15	
Cys	Arg	Ala	Phe	Asn	Ala	Lys	Pro	Ala	Ala	Thr	Ile	Ile	Trp	Phe	Arg.
		20						25					30		
Asp	Gly	Thr	Gln	Gln	Glu	Gly	Ala	Val	Ala	Ser	Thr	Glu	Leu	Leu	Lys
	35					40						45			
Asp	Gly	Lys	Arg	Glu	Thr	Thr	Val	Ser	Gln	Leu	Leu	Ile	Asn	Pro	Thr
	50					55				60					
Asp	Leu	Asp	Ile	Gly	Arg	Val	Phe	Thr	Cys	Arg	Ser	Met	Asn	Glu	Ala
65				70					75					80	
Ile	Pro	Ser	Gly	Lys	Glu	Thr	Ser	Ile	Glu	Leu	Asp	Val	His	His	Pro
			85					90					95		
Pro	Thr	Val	Thr	Leu	Ser	Ile	Glu	Pro	Gln	Thr	Val	Gln	Glu	Gly	Glu
		100					105					110			
Arg	Val	Val	Phe	Thr	Cys	Gln	Ala	Thr	Ala	Asn	Pro	Glu	Ile		
	115						120					125			

<210> 1571

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1571

tgcgcacttt tccgctcccc atgggtcccc tggncgttga tcatgcccc gatgttcate
60
atcggcatct tcttcttctt gccaaagcggc caagccgtgc tccagtcttt ccagatggaa
120
gatgcgttcg gcatgtcgac cgaatgggtc ggattggaca acttcgcaa cctgctggat
180
gacccacct acctgaattc cttccagcgc accgccgtgt tctcggtgct ggtggcaggg
240
gtcgggatcg ccgtgtcact gggctctggcg atctttgccg accccatcac tccgtcgcca
300
tgtgtacaag acacactgct gatcgtgccc tacgccgtgg caccatgat cgccggc
357

<210> 1572

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1572.

Cys Ala Leu Phe Arg Ser Arg Trp Val Pro Trp Xaa Leu Ile Met Pro


```

      1           5           10           15
Gln Met Phe Ile Ile Gly Ile Phe Phe Phe Leu Pro Ser Gly Gln Ala
      20           25           30
Val Leu Gln Ser Phe Gln Met Glu Asp Ala Phe Gly Met Ser Thr Glu
      35           40           45
Trp Val Gly Leu Asp Asn Phe Arg Asn Leu Leu Asp Asp Pro Thr Tyr
      50           55           60
Leu Asn Ser Phe Gln Arg Thr Ala Val Phe Ser Val Leu Val Ala Gly
      65           70           75           80
Val Gly Ile Ala Val Ser Leu Gly Leu Ala Ile Phe Ala Asp Pro Ile
      85           90           95
Thr Pro Ser Pro Cys Val Gln Asp Thr Leu Leu Ile Val Pro Tyr Ala
      100           105           110
Val Ala Pro Met Ile Ala Gly
      115

```

<210> 1573

<211> 337

<212> DNA

<213> Homo sapiens

<400> 1573

```

gaattcccat tgatcatctga ttccatgtct ggaaagaggg aagagagaca tcatgcagaa
60
tattgtacag attttggaat cggtagcagtt gaaatgggaa ctttttcaga gctggacaga
120
cttttcaagg ctccatcttt ctaataaaact ggccattttt ggaattgggtt ataacacccg
180
ttggaaagag gatatccggt accattatgc tgagatcagc tcccaggtgc cccttgga
240
gcgacttcgg gactacttca actctgagaa gcctgaagga cggatcatta tgacccgagt
300
gcagaaaatg aactggaaaa atgtttacta caaattt
337

```

<210> 1574

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1574

```

Met Gln Asn Ile Val Gln Ile Leu Glu Ser Val Gln Leu Lys Trp Glu
      1           5           10           15
Leu Phe Gln Ser Trp Thr Asp Phe Ser Arg Leu His Leu Ser Asn Lys
      20           25           30
Leu Ala Ile Phe Gly Ile Gly Tyr Asn Thr Arg Trp Lys Glu Asp Ile
      35           40           45
Arg Tyr His Tyr Ala Glu Ile Ser Ser Gln Val Pro Leu Gly Lys Arg
      50           55           60
Leu Arg Glu Tyr Phe Asn Ser Glu Lys Pro Glu Gly Arg Ile Ile Met
      65           70           75           80
Thr Arg Val Gln Lys Met Asn Trp Lys Asn Val Tyr Tyr Lys Phe
      85           90           95

```


<210> 1575
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 1575
 nnacgcgtca gagagatctg tgtgtcggga ggggtgcccc tcatcattga tgaccgcgta
 60
 catctcgttg ccgaaattgg ggccgatggt gtccatgttg ggcagtctga catgccggtc
 120
 gaccaggccc gtgcgattct gggcgacgat ctactcatcg gcttgtccgc tcagactccc
 180
 gcccatgtgg aggccgccct gtcccagggg cgtgacatcg tcgactatct gggagttggg
 240
 gccctgcatg gtactggaac caaacctgag gctggggagc tcggcctggc tgagattcgt
 300
 gatgtcgtca acgccagccc gtggccgggtg tgcgtcatcg gtgggggtgag cgcacccgat
 360
 gctcaagacg tagccccgggt gggatgtgac ggcctgagcg tcgtctcggc gatttgccgg
 420
 agtaccgacc ccaagtccag tgcacgggaa cttgcggagg cgtggcgtac g
 471

<210> 1576
 <211> 157
 <212> PRT
 <213> Homo sapiens

<400> 1576
 Xaa Arg Val Arg Glu Ile Cys Val Ser Gly Gly Val Pro Leu Ile Ile
 1 5 10 15
 Asp Asp Arg Val His Leu Val Ala Glu Ile Gly Ala Asp Gly Val His
 20 25 30
 Val Gly Gln Ser Asp Met Pro Val Asp Gln Ala Arg Ala Ile Leu Gly
 35 40 45
 Asp Asp Leu Leu Ile Gly Leu Ser Ala Gln Thr Pro Ala His Val Glu
 50 55 60
 Ala Ala Leu Ser Gln Gly Arg Asp Ile Val Asp Tyr Leu Gly Val Gly
 65 70 75 80
 Ala Leu His Gly Thr Gly Thr Lys Pro Glu Ala Gly Glu Leu Gly Leu
 85 90 95
 Ala Glu Ile Arg Asp Val Val Asn Ala Ser Pro Trp Pro Val Cys Val
 100 105 110
 Ile Gly Gly Val Ser Ala Ser Asp Ala Gln Asp Val Ala Arg Val Gly
 115 120 125
 Cys Asp Gly Leu Ser Val Val Ser Ala Ile Cys Arg Ser Thr Asp Pro
 130 135 140
 Lys Ser Ser Ala Arg Glu Leu Ala Glu Ala Trp Arg Thr
 145 150 155

<210> 1577
 <211> 287
 <212> DNA
 <213> Homo sapiens

<400> 1577

ctcgtcctcc agcgtccgat cagtgcgctc aggatgctga tcggcgggccc cttgcgcac
 60
 ccccatcctg cgggcttgcg cacgggttgcg ctgaacccg gcgtcgcgca cgcgcgcacc
 120
 ttgcgcgttg ccggggcagg cttccccgct cgcggccagc gcgccgccgg cgatctggtg
 180
 atcgagctgg agccgatgct gccgcaggcg cccgacaagc aactgcacgc gctgatcgag
 240
 cagctcgacg tggcgctcgg gaagagcgcg acacgccatt ttccgga
 287

<210> 1578

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1578

Leu	Val	Leu	Gln	Arg	Pro	Ile	Ser	Ala	Leu	Arg	Met	Leu	Ile	Gly	Gly
1			5						10				15		
Pro	Leu	Arg	Ile	Pro	His	Pro	Ala	Gly	Leu	Arg	Thr	Val	Ala	Leu	Glu
		20						25				30			
Pro	Gly	Val	Ala	His	Ala	Arg	Thr	Leu	Arg	Val	Ala	Gly	Ala	Gly	Phe
		35				40					45				
Pro	Ala	Arg	Gly	Gln	Arg	Ala	Ala	Gly	Asp	Leu	Val	Ile	Glu	Leu	Glu
	50					55				60					
Pro	Met	Leu	Pro	Gln	Ala	Pro	Asp	Lys	Gln	Leu	His	Ala	Leu	Ile	Glu
65				70					75					80	
Gln	Leu	Asp	Val	Ala	Leu	Gly	Lys	Ser	Ala	Thr	Arg	His	Phe	Pro	
			85						90					95	

<210> 1579

<211> 2829

<212> DNA

<213> Homo sapiens

<400> 1579

nggggcgggg agcggacttc ctcctctgag ggccgtgccg cgctgccaga tttgttcttc
 60
 cgccccctgcc tccgcggctc ggaggcgagc ggaaggtgcc ccggggccga ggcccgtgac
 120
 ggggcgggcg ggagccccgg cagtccgggg tcgccggcga gggccatgtc gctgttgggg
 180
 gaccgcgtac aggccctgcc gccctcgcc gcccccacgg ggccgctgct cgccccctcg
 240
 gccggcgca cctcaaccg cctgcgggag ccgctgctgc ggaggctcag cgagctcctg
 300
 gatcaggcgc ccgagggccg gggctggagg agactggcgg agctggcggg gagtgcgggg
 360
 cgctccgcc tcagttgcct agacctggag cagtgttctc ttaaggtact ggagcctgaa
 420
 ggaagcccca gcctgtgtct gctgaagtta atgggtgaaa aaggttcac agtcacagaa
 480

ttgagtgatt tccctgcaggc tatggaacac actgaagttc ttcagcttct cagcccccca
540
ggaataaaga ttactgtaaa cccagagtca aaggcagtct tggctggaca gtttgtgaaa
600
ctgtgttgcc gggcaactgg acatcctttt gttcaatatc agtgggtcaa aatgaataaa
660
gagattccaa atggaaatac atcagagctt atttttaatg cagtgcattg aaaagatgca
720
ggcttttatg tctgtcaggt taataacaat ttcacctttg aattcagcca gtggtcacag
780
ctggatgttt gcgacatccc agagagcttc cagagaagtg ttgatggcgt ctctgaatcc
840
aagttgcaaa tctgtgttga accaacttcc caaaagctga tgccaggcag cacattgggt
900
ttacagtgtg ttgctgttgg aagccctatt cctcactacc agtgggtcaa aaatgaatta
960
ccattaacac atgagaccaa aaagctatac atgggtgcctt atgcggattt ggaacaccaa
1020
ggaacctact ggtgtcatgt atataatgat cgagacagtc aagatagcaa gaaggtagaa
1080
atcatcatag gaagaacaga tgaggcagtg gagtgcactg aagatgaatt aaataatctt
1140
ggtcactctg ataataaaga gcaacaact gaccagcctt tggcgaagga caagggtgccc
1200
cttttgatag gaaatatgaa ttaccgggag caccccaagc tcaaagctcc tttgggtggat
1260
gtgtacgaat tgactaactt actgagacag ctggacttca aagtgggttc actgttggat
1320
cttactgaat atgagatgag taatgctgtg gatgagtttt tactcctttt agacaaggga
1380
gtatatgggt tattatatta tgcaggacat ggttatgaaa attttgggaa cagcttcatg
1440
gtccccgttg atgtccaaa tccatatagg tctgaaaatt gtctgtgtgt acaaaatata
1500
ctgaaattga tgcaagaaaa agaaactgga cttaatgtgt tcttattgga tatgtgtagg
1560
aaaagaaatg actacgatga taccattcca atcttggatg cactaaaagt caccgccaat
1620
attgtgtttg gatatgccac gtgtcaagga gcagaagctt ttgaaatcca gcattctgga
1680
ttggcaaatg gaatctttat gaaattttta aaagacagat tattagaaga taagaaaatc
1740
actgtgttac tggatgaagt tgcagaagat atgggttaagt gtcaccttac caaaggcaaa
1800
caggctctag agattcgaag tagtttatct gagaagagag cacttactga tccaatacag
1860
ggaacagaat attctgtctg atctcttctg cggaatctac agtgggcaa ggctcatgaa
1920
cttccagaaa gtatgtgtct taagtttgac tgtggtgttc agattcaatt aggatttgca
1980
gctgagtttt ccaatgtcat gatcatctat acaagtatag ttacaaaacc accggagata
2040
ataatgtgtg atgcctacgt tactgatttt ccacttgatc tagatattga tccaaaagat
2100

gcaaataaag gcacacctga agaaactggc agctacttgg tatcaaagga tcttcccaag
 2160
 cattgcctct ataccagact cagttcactg caaaaattaa aggaacatct agtcttcaca
 2220
 gtatgtttat catatcagta ctcaggattg gaagatactg tagaggacaa gcaggaagtg
 2280
 aatgttggga aacctctcat tgctaaatta gacatgcac gaggtttggg aaggaagact
 2340
 tgctttcaaa ctgtcttat gtctaattgg ccttaccaga gttctgcagc cacctcagga
 2400
 ggagcagggc attatcactc attgcaagac ccattccatg gtgtttacca ttcacatcct
 2460
 ggtaatccaa gtaatgttac accagcagat agctgtcatt gcagccggac tccagatgca
 2520
 tttatttcaa gtttcgctca ccatgcttca tgtcatttta gtagaagtaa tgtgccagta
 2580
 gagacaactg atgaaatacc atttagtttc tctgacaggc tcagaatttc tgaaaaatga
 2640
 cctccttggt tttgaaagtt agcataattt tagatgcctg tgaaatagta ctgcacttac
 2700
 ataaagtgag acattgtgaa aaggcaaatt tgtatatgta gagaaagaat agtagtaact
 2760
 gtttcatagc aaacttcagg actttgagat gttgaaatta cattatttaa ttacagactt
 2820
 cctctttct
 2829

<210> 1580

<211> 824

<212> PRT

<213> Homo sapiens

<400> 1580

Met	Ser	Leu	Leu	Gly	Asp	Pro	Leu	Gln	Ala	Leu	Pro	Pro	Ser	Ala	Ala
1				5					10					15	
Pro	Thr	Gly	Pro	Leu	Leu	Ala	Pro	Pro	Ala	Gly	Ala	Thr	Leu	Asn	Arg
			20					25					30		
Leu	Arg	Glu	Pro	Leu	Leu	Arg	Arg	Leu	Ser	Glu	Leu	Leu	Asp	Gln	Ala
		35					40					45			
Pro	Glu	Gly	Arg	Gly	Trp	Arg	Arg	Leu	Ala	Glu	Leu	Ala	Gly	Ser	Arg
		50				55				60					
Gly	Arg	Leu	Arg	Leu	Ser	Cys	Leu	Asp	Leu	Glu	Gln	Cys	Ser	Leu	Lys
65				70					75					80	
Val	Leu	Glu	Pro	Glu	Gly	Ser	Pro	Ser	Leu	Cys	Leu	Leu	Lys	Leu	Met
			85					90						95	
Gly	Glu	Lys	Gly	Cys	Thr	Val	Thr	Glu	Leu	Ser	Asp	Phe	Leu	Gln	Ala
			100					105					110		
Met	Glu	His	Thr	Glu	Val	Leu	Gln	Leu	Leu	Ser	Pro	Pro	Gly	Ile	Lys
		115				120						125			
Ile	Thr	Val	Asn	Pro	Glu	Ser	Lys	Ala	Val	Leu	Ala	Gly	Gln	Phe	Val
		130				135					140				
Lys	Leu	Cys	Cys	Arg	Ala	Thr	Gly	His	Pro	Phe	Val	Gln	Tyr	Gln	Trp
145				150					155				160		
Phe	Lys	Met	Asn	Lys	Glu	Ile	Pro	Asn	Gly	Asn	Thr	Ser	Glu	Leu	Ile

165 170 175
 Phe Asn Ala Val His Val Lys Asp Ala Gly Phe Tyr Val Cys Arg Val
 180 185 190
 Asn Asn Asn Phe Thr Phe Glu Phe Ser Gln Trp Ser Gln Leu Asp Val
 195 200 205
 Cys Asp Ile Pro Glu Ser Phe Gln Arg Ser Val Asp Gly Val Ser Glu
 210 215 220
 Ser Lys Leu Gln Ile Cys Val Glu Pro Thr Ser Gln Lys Leu Met Pro
 225 230 235 240
 Gly Ser Thr Leu Val Leu Gln Cys Val Ala Val Gly Ser Pro Ile Pro
 245 250 255
 His Tyr Gln Trp Phe Lys Asn Glu Leu Pro Leu Thr His Glu Thr Lys
 260 265 270
 Lys Leu Tyr Met Val Pro Tyr Ala Asp Leu Glu His Gln Gly Thr Tyr
 275 280 285
 Trp Cys His Val Tyr Asn Asp Arg Asp Ser Gln Asp Ser Lys Lys Val
 290 295 300
 Glu Ile Ile Ile Gly Arg Thr Asp Glu Ala Val Glu Cys Thr Glu Asp
 305 310 315 320
 Glu Leu Asn Asn Leu Gly His Pro Asp Asn Lys Glu Gln Thr Thr Asp
 325 330 335
 Gln Pro Leu Ala Lys Asp Lys Val Ala Leu Leu Ile Gly Asn Met Asn
 340 345 350
 Tyr Arg Glu His Pro Lys Leu Lys Ala Pro Leu Val Asp Val Tyr Glu
 355 360 365
 Leu Thr Asn Leu Leu Arg Gln Leu Asp Phe Lys Val Val Ser Leu Leu
 370 375 380
 Asp Leu Thr Glu Tyr Glu Met Arg Asn Ala Val Asp Glu Phe Leu Leu
 385 390 395 400
 Leu Leu Asp Lys Gly Val Tyr Gly Leu Leu Tyr Tyr Ala Gly His Gly
 405 410 415
 Tyr Glu Asn Phe Gly Asn Ser Phe Met Val Pro Val Asp Ala Pro Asn
 420 425 430
 Pro Tyr Arg Ser Glu Asn Cys Leu Cys Val Gln Asn Ile Leu Lys Leu
 435 440 445
 Met Gln Glu Lys Glu Thr Gly Leu Asn Val Phe Leu Leu Asp Met Cys
 450 455 460
 Arg Lys Arg Asn Asp Tyr Asp Asp Thr Ile Pro Ile Leu Asp Ala Leu
 465 470 475 480
 Lys Val Thr Ala Asn Ile Val Phe Gly Tyr Ala Thr Cys Gln Gly Ala
 485 490 495
 Glu Ala Phe Glu Ile Gln His Ser Gly Leu Ala Asn Gly Ile Phe Met
 500 505 510
 Lys Phe Leu Lys Asp Arg Leu Leu Glu Asp Lys Lys Ile Thr Val Leu
 515 520 525
 Leu Asp Glu Val Ala Glu Asp Met Gly Lys Cys His Leu Thr Lys Gly
 530 535 540
 Lys Gln Ala Leu Glu Ile Arg Ser Ser Leu Ser Glu Lys Arg Ala Leu
 545 550 555 560
 Thr Asp Pro Ile Gln Gly Thr Glu Tyr Ser Ala Glu Ser Leu Val Arg
 565 570 575
 Asn Leu Gln Trp Ala Lys Ala His Glu Leu Pro Glu Ser Met Cys Leu
 580 585 590
 Lys Phe Asp Cys Gly Val Gln Ile Gln Leu Gly Phe Ala Ala Glu Phe

595 600 605
 Ser Asn Val Met Ile Ile Tyr Thr Ser Ile Val Tyr Lys Pro Pro Glu
 610 615 620
 Ile Ile Met Cys Asp Ala Tyr Val Thr Asp Phe Pro Leu Asp Leu Asp
 625 630 635 640
 Ile Asp Pro Lys Asp Ala Asn Lys Gly Thr Pro Glu Glu Thr Gly Ser
 645 650 655
 Tyr Leu Val Ser Lys Asp Leu Pro Lys His Cys Leu Tyr Thr Arg Leu
 660 665 670
 Ser Ser Leu Gln Lys Leu Lys Glu His Leu Val Phe Thr Val Cys Leu
 675 680 685
 Ser Tyr Gln Tyr Ser Gly Leu Glu Asp Thr Val Glu Asp Lys Gln Glu
 690 695 700
 Val Asn Val Gly Lys Pro Leu Ile Ala Lys Leu Asp Met His Arg Gly
 705 710 715 720
 Leu Gly Arg Lys Thr Cys Phe Gln Thr Cys Leu Met Ser Asn Gly Pro
 725 730 735
 Tyr Gln Ser Ser Ala Ala Thr Ser Gly Gly Ala Gly His Tyr His Ser
 740 745 750
 Leu Gln Asp Pro Phe His Gly Val Tyr His Ser His Pro Gly Asn Pro
 755 760 765
 Ser Asn Val Thr Pro Ala Asp Ser Cys His Cys Ser Arg Thr Pro Asp
 770 775 780
 Ala Phe Ile Ser Ser Phe Ala His His Ala Ser Cys His Phe Ser Arg
 785 790 795 800
 Ser Asn Val Pro Val Glu Thr Thr Asp Glu Ile Pro Phe Ser Phe Ser
 805 810 815
 Asp Arg Leu Arg Ile Ser Glu Lys
 820

<210> 1581
 <211> 426
 <212> DNA
 <213> Homo sapiens

<400> 1581
 gatccgcatc gcccgtttat tgacgaggtg accttcaccc gagagggcca tacctatcac
 60
 cgggtgcccc aggtggctga cgcctggctc gattcgggct cgatgccctt cgcccagtg
 120
 ggatacccg c atgtgccccg ttcgaaggag aagttcgagt cccactaccc ggggtgacttc
 180
 atctgtgagg ccatcgacca gacccgcggg tggttttaca ccatgatggc cgtcgggaacc
 240
 ctggtgtttg acgagtcctc gtaccgcaat gtgctgtgtc tgggccacat cttggccgag
 300
 gacggtcgca agatgagcaa gcaccttggc aacatcctgt tgcctatccc gctcatggat
 360
 tcccacgggtg ccgacgcgct gcgttggttc atggcgggcg acggctcccc atggagtgca
 420
 cgacgc
 426

<210> 1582

<211> 142
 <212> PRT
 <213> Homo sapiens

<400> 1582
 Asp Pro His Arg Pro Phe Ile Asp Glu Val Thr Phe Thr Arg Glu Gly
 1 5 10 15
 His Thr Tyr His Arg Val Pro Glu Val Ala Asp Ala Trp Leu Asp Ser
 20 25 30
 Gly Ser Met Pro Phe Ala Gln Trp Gly Tyr Pro His Val Pro Gly Ser
 35 40 45
 Lys Glu Lys Phe Glu Ser His Tyr Pro Gly Asp Phe Ile Cys Glu Ala
 50 55 60
 Ile Asp Gln Thr Arg Gly Trp Phe Tyr Thr Met Met Ala Val Gly Thr
 65 70 75 80
 Leu Val Phe Asp Glu Ser Ser Tyr Arg Asn Val Leu Cys Leu Gly His
 85 90 95
 Ile Leu Ala Glu Asp Gly Arg Lys Met Ser Lys His Leu Gly Asn Ile
 100 105 110
 Leu Leu Pro Ile Pro Leu Met Asp Ser His Gly Ala Asp Ala Leu Arg
 115 120 125
 Trp Phe Met Ala Ala Asp Gly Ser Pro Trp Ser Ala Arg Arg
 130 135 140

<210> 1583
 <211> 450
 <212> DNA
 <213> Homo sapiens

<400> 1583
 nnacgcgtga agggttatgg agatggttca gggagtaagg aaggtttcag ggatggttta
 60
 ggggggttctg aggaaatggg gtcaatggat gaggcaggtt ataggaagga tttgggggct
 120
 cctaagggaa taggttcagg gagtaaggca ggtttcaggg atggtttagg gagttctggg
 180
 gaaatggggt caatggatga ggcagattat aggaaggatt tgggagctcc tgaggaaatg
 240
 ggttcaggca gttacacaga ttacaggaat ggtttaggca gttctggaaa aatcagttca
 300
 ggggatgagg caggttataa gaatgtttta ggggggttctg ggaggaatcc attagggagc
 360
 gaggcaggtt ctaggggtag tttggaggat tctgggtaca tcttgtcatg gaatgaggca
 420
 ggttctaggc aaggctttgg gggaactagt
 450

<210> 1584
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 1584
 Xaa Arg Val Lys Gly Tyr Gly Asp Gly Ser Gly Ser Lys Glu Gly Phe

<400> 1586
Met Glu Gly Lys Ser Gly Arg Ser Arg Glu Thr Gly Leu Ser Gln Lys


```

      1           5           10           15
Val Ile Lys His Trp Phe Arg Asn Thr Leu Phe Lys Glu Arg Gln Arg
      20           25           30
Asn Lys Asp Ser Pro Tyr Asn Phe Ser Asn Pro Pro Ile Thr Val Leu
      35           40           45
Glu Asp Ile Arg Ile Asp Pro Gln Pro Thr Ser Leu Glu His Tyr Lys
      50           55           60
Ser Asp Ala Ser Phe Ser Lys Arg Ser Ser Arg Thr Arg Phe Thr Asp
      65           70           75           80
Tyr Gln Leu Arg Val Leu Gln Asp Phe Phe Asp Thr Asn Ala Tyr Pro
      85           90           95
Lys Asp Asp Glu Ile Glu Gln Leu Ser Thr Val Leu Asn Leu Pro Thr
      100          105          110
Arg Val Ile Val Val Trp Phe Gln Asn Ala Arg Gln Lys Ala Arg Lys
      115          120          125
Ser Tyr Glu Asn Gln Ala Glu Thr Pro Ser Arg
      130          135

```

<210> 1587

<211> 501

<212> DNA

<213> Homo sapiens

<400> 1587

```

tgtacacaca gtgatttggg gtccttttttc ctaaaacagc ttcttttatca ggactttgga
60
attctgggtg agatagaaac actgaaaaca gggcggaagt tttttcttct ggcttcttag
120
tccacggagg gctcagcgtg gagaggatat gccgtggcat tctccctggg agaccacaca
180
tggtcccgac agctcagacc ccagaccgca tgtgctcctg acagctcaga cccagaccg
240
cgcgtgctcc tgacagctca gacccagac cgcaggtgct cccgacagct cagacccag
300
accgcgggtg ctctgacag ctcagacccc agaccgcgcg tgctcccgac agctcagacc
360
ccagaccgcg ggtgctcctg acagctcaga cccagaccg cgcgtgctcc cgacagctca
420
gacccagac cgcgggtgct cctgacagct cagaccccag accgcgggtg ctctgacag
480
ctcagacccc agaccacgcg t
501

```

<210> 1588

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1588

```

Ser Thr Glu Gly Ser Ala Trp Arg Gly Tyr Ala Val Ala Phe Ser Leu
1           5           10           15
Gly Asp His Thr Cys Ser Arg Gln Leu Arg Pro Gln Thr Ala Cys Ala
      20           25           30
Pro Asp Ser Ser Asp Pro Arg Pro Arg Val Leu Leu Thr Ala Gln Thr

```



```

          35          40          45
Pro Asp Arg Arg Cys Ser Arg Gln Leu Arg Pro Gln Thr Ala Gly Ala
  50          55          60
Pro Asp Ser Ser Asp Pro Arg Pro Arg Val Leu Pro Thr Ala Gln Thr
  65          70          75          80
Pro Asp Arg Gly Cys Ser
          85

```

<210> 1589
 <211> 407
 <212> DNA
 <213> Homo sapiens

```

<400> 1589
aagcttgctg gggacaccct ttttacgggg cctcgtgggg gaggagttac ctgcattgac
  60
tccaccgggt ccactaacgc cgacatggct gctttcgtgc gagcaggggg aacgtctttc
  120
tgcctactcg ttgctgacca ccaagagggc gggcgtggac ggttcacgcg cagttggcag
  180
gatgtccccg gtacgagttt ggcgatctca gcgttggtgc ccaatgatcg tccgtcgcag
  240
gactggggct ggctgtcgat ggttgcgggg ctcgctgttg tcaaggatcat caaggaggtc
  300
ggtggggctg accgttcccc agtgacgctg aagtggccca atgatgtgct cgtggatctg
  360
gacactgacc agggcgggcaa agtgtgcgga attctctcag aacgcgt
  407

```

<210> 1590
 <211> 135
 <212> PRT
 <213> Homo sapiens

```

<400> 1590
Lys Leu Ala Gly Asp Thr Leu Phe Thr Gly Pro Arg Gly Gly Gly Val
  1          5          10          15
Thr Cys Ile Asp Ser Thr Gly Ser Thr Asn Ala Asp Met Ala Ala Phe
          20          25          30
Val Arg Ala Gly Gly Thr Ser Phe Cys Leu Leu Val Ala Asp His Gln
          35          40          45
Glu Gly Gly Arg Gly Arg Phe Thr Arg Ser Trp Gln Asp Val Pro Gly
          50          55          60
Thr Ser Leu Ala Ile Ser Ala Leu Val Pro Asn Asp Arg Pro Ser Gln
          65          70          75          80
Asp Trp Gly Trp Leu Ser Met Val Ala Gly Leu Ala Val Val Lys Val
          85          90          95
Ile Lys Glu Val Gly Gly Ala Asp Arg Ser Arg Val Thr Leu Lys Trp
          100          105          110
Pro Asn Asp Val Leu Val Asp Leu Asp Thr Asp Gln Gly Gly Lys Val
          115          120          125
Cys Gly Ile Leu Ser Glu Arg
          130          135

```


<210> 1591
 <211> 424
 <212> DNA
 <213> Homo sapiens

<400> 1591
 agatctctct ccctgagata acccaggctt tagaaccaaa gagctgagag accctgtccc
 60
 ttcagagagg cacttgcacc tagaggagtc tctgggaagc agatggggat atgggacaga
 120
 cgcattctga aaaagcccc agatgcctcc ctatggagga cctcaccac ccacatcacc
 180
 agtagggagc ttgggactta ccctaaccac aggggggtga ctgttgctcg ccctgcacag
 240
 aacgtccagc gagtctgac tttccagccg ctgcgcttca tccaggagca cgtcctgac
 300
 cctgtctttg acctcagcgg cccagcagt ctggcccagc ctgtccagta ctcccttgac
 360
 tgtgggatcc ctggctgctc acgcccctga ggaccctcg gatctgctcc agcacgtgaa
 420
 attt
 424

<210> 1592
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 1592
 Met Gly Ile Trp Asp Arg Arg Ile Leu Lys Lys Pro Pro Asp Ala Ser
 1 5 10 15
 Leu Trp Arg Thr Ser Pro Thr His Ile Thr Ser Arg Glu Leu Gly Thr
 20 25 30
 Tyr Pro Asn His Arg Gly Val Thr Val Val Val Pro Ala Gln Asn Val
 35 40 45
 Gln Arg Val Leu Thr Phe Gln Pro Leu Arg Phe Ile Gln Glu His Val
 50 55 60
 Leu Ile Pro Val Phe Asp Leu Ser Gly Pro Ser Ser Leu Ala Gln Pro
 65 70 75 80
 Val Gln Tyr Ser Leu Asp Cys Gly Ile Pro Gly Cys Ser Arg Pro
 85 90 95

<210> 1593
 <211> 1678
 <212> DNA
 <213> Homo sapiens

<400> 1593
 cttgaatcta aaataaatga aataaacaca gaaattaacc agttgattga aaagaaaatg
 60
 atgagaaatg agccattga aggcaaacctc tcaactgtata ggcaacaggc atctatcatt
 120
 tcccgtaaaa aagaagccaa agctgaggaa cttcaggagg ccaaggagaa gttagccagc
 180

ctagagagag aagcatcagt aaagagaaat cagacccgtg aatttgatgg tactgaagtt
240
ttaaagggag atgagttcaa acgatatgtc aataaacttc gaagcaagag tacagttttc
300
aaaaagaagc atcacataat agctgaactt aaagctgaat tcgggtctttt gcagaggact
360
gaagaacttc ttaagcaacg tcatgaaaat attcaacaac aactgcaaac tatggaggag
420
aaaaagggtg tatctggata tagttacacc caagaagagc tagaaagagt atctgcactg
480
aagagtgaag ttgatgaaat gaaaggacga acattggatg atatgtctga aatggtgaaa
540
aaactgtatt cattgggtatc tgaaaagaag tcagctcttg cctcagttat aaaagagcta
600
cgacagttgc gtcaaaaata tcaagaactg acccaggagt gtgatgaaaa gaaatcccag
660
tatgatagct gtgcagcagg cctcgaaagc aatcggtcca aattagaaca ggaagttaga
720
agactccgtg aagaatgtct tcaagaagaa agtagatacc attatacaaa ttgtatgatt
780
aagaacctag aagttcaact tcgtcgtgct actgatgaga tgaaggcata tatctcttct
840
gatcaacaag aaaaaagaaa ggcaattagg gaacagtata ccaaaaatac tgctgaacaa
900
gaaaaccttg gaaagaaact tcgggaaaaa caaaaagtta tacgagaaag tcatgggtcca
960
aatatgaaac aagcaaaaat gtggcgtgat ttggaacaat taatggaatg taagaaacag
1020
tgctttctga aacaacaaag ccaaacttcc attggtcagg taattcagga ggggtggggag
1080
gaccggctaa tactgtgaat tcttgtgtca tcgtttgggg ttttacttga taccactagc
1140
tataagccta atctcataat gtatttcttt tttgaaactg atttgtttag cattttgttt
1200
tcagaagagc cattctttat taagttttca tagaaaataa tgtaaggta gatttagttt
1260
gaatgttttt tcatatgaaa aagaggcttt tattcttttc catagttagg acatcactgg
1320
cgtcttctga gttttatgag acaggaaact aagtttacta tctgtaaatg taaacatatg
1380
tccattaaga aacatgtagt ttttttttag aatgtaataa cccagtggct tactgttttt
1440
cttaactctt tttaaaaaa ctttagaaga atcttttagg aactaatatc tcttgttctg
1500
aagaaacatt tatctgacgt tcagcagttc ctacagtttt acttcagttt atttttcttc
1560
tgtaaaatgc aagaaaattt aatattttga ctaacatgtc ttttctgttt gtatcattta
1620
aaggcaaata aacttgggtac gtatttcata tctattttaa aaatgaaaaa aaaaaaaa
1678

<210> 1594

<211> 365

<212> PRT

<213> Homo sapiens

<400> 1594

```

Leu Glu Ser Lys Ile Asn Glu Ile Asn Thr Glu Ile Asn Gln Leu Ile
 1           5           10           15
Glu Lys Lys Met Met Arg Asn Glu Pro Ile Glu Gly Lys Leu Ser Leu
 20           25           30
Tyr Arg Gln Gln Ala Ser Ile Ile Ser Arg Lys Lys Glu Ala Lys Ala
 35           40           45
Glu Glu Leu Gln Glu Ala Lys Glu Lys Leu Ala Ser Leu Glu Arg Glu
 50           55           60
Ala Ser Val Lys Arg Asn Gln Thr Arg Glu Phe Asp Gly Thr Glu Val
 65           70           75           80
Leu Lys Gly Asp Glu Phe Lys Arg Tyr Val Asn Lys Leu Arg Ser Lys
 85           90           95
Ser Thr Val Phe Lys Lys Lys His His Ile Ile Ala Glu Leu Lys Ala
100          105          110
Glu Phe Gly Leu Leu Gln Arg Thr Glu Glu Leu Leu Lys Gln Arg His
115          120          125
Glu Asn Ile Gln Gln Gln Leu Gln Thr Met Glu Glu Lys Lys Gly Ile
130          135          140
Ser Gly Tyr Ser Tyr Thr Gln Glu Glu Leu Glu Arg Val Ser Ala Leu
145          150          155          160
Lys Ser Glu Val Asp Glu Met Lys Gly Arg Thr Leu Asp Asp Met Ser
165          170          175
Glu Met Val Lys Lys Leu Tyr Ser Leu Val Ser Glu Lys Lys Ser Ala
180          185          190
Leu Ala Ser Val Ile Lys Glu Leu Arg Gln Leu Arg Gln Lys Tyr Gln
195          200          205
Glu Leu Thr Gln Glu Cys Asp Glu Lys Lys Ser Gln Tyr Asp Ser Cys
210          215          220
Ala Ala Gly Leu Glu Ser Asn Arg Ser Lys Leu Glu Gln Glu Val Arg
225          230          235          240
Arg Leu Arg Glu Glu Cys Leu Gln Glu Glu Ser Arg Tyr His Tyr Thr
245          250          255
Asn Cys Met Ile Lys Asn Leu Glu Val Gln Leu Arg Arg Ala Thr Asp
260          265          270
Glu Met Lys Ala Tyr Ile Ser Ser Asp Gln Gln Glu Lys Arg Lys Ala
275          280          285
Ile Arg Glu Gln Tyr Thr Lys Asn Thr Ala Glu Gln Glu Asn Leu Gly
290          295          300
Lys Lys Leu Arg Glu Lys Gln Lys Val Ile Arg Glu Ser His Gly Pro
305          310          315          320
Asn Met Lys Gln Ala Lys Met Trp Arg Asp Leu Glu Gln Leu Met Glu
325          330          335
Cys Lys Lys Gln Cys Phe Leu Lys Gln Gln Ser Gln Thr Ser Ile Gly
340          345          350
Gln Val Ile Gln Glu Gly Gly Glu Asp Arg Leu Ile Leu
355          360          365

```

<210> 1595

<211> 559

<212> DNA

<213> Homo sapiens

<400> 1595
 accggtcccc ctcacaggcc cacacctgct tctcctcctg gggcagggca gcctggtggg
 60
 gcatggccgg ggagccgccc acttggcgag gaacaggctc catagcgacc tcagaacact
 120
 ggtgctgggg cccagccagg gagagcatct tcccgtggg accttccccg gggcggctca
 180
 tcccttgagg atgtaggggtg cagctgagat ggtggcgggc ccattcctgc tgttcgccag
 240
 cctgggctgg ggggtactagg atcacccttg ggctgatgag gagcccggtt cttgggcagt
 300
 taccaagtgg ggggtcacag tctggaaaagt ggtggaacca agggagcggc ctcgcccagg
 360
 ccacactctc aaatactggc cctcgacaaa aggcagctgg gctctcaaga cagggccaac
 420
 tcctctctgc tgggcccgcg cccgtggaga gcaagtggga actgacccta tcttctgtcc
 480
 cagcttgagg agccagcatc aaggtcaggc ctcacttgcc caagaaagag gagtgaggag
 540
 gcccaactgga ggaacgcgt
 559

<210> 1596
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 1596
 Met Leu Ala Leu Gln Ala Gly Thr Glu Asp Arg Val Ser Ser His Leu
 1 5 10 15
 Leu Ser Thr Gly Ala Gly Pro Ala Glu Arg Arg Trp Pro Cys Leu Glu
 20 25 30
 Ser Pro Ala Ala Phe Cys Arg Gly Pro Val Phe Glu Ser Val Ala Trp
 35 40 45
 Ala Arg Pro Leu Pro Trp Phe His His Phe Pro Asp Cys Asp Pro Pro
 50 55 60
 Leu Gly Asn Cys Pro Arg Pro Gly Leu Leu Ile Ser Pro Arg Val Ile
 65 70 75 80
 Leu Val Pro Pro Ala Gln Ala Gly Glu Gln Gln Glu Trp Gly Arg His
 85 90 95
 His Leu Ser Cys Thr Leu His Leu Gln Gly Met Ser Arg Pro Gly Glu
 100 105 110
 Gly Pro Ser Gly Lys Met Leu Ser Leu Ala Gly Pro Gln His Gln Cys
 115 120 125
 Ser Glu Val Ala Met Glu Pro Val Pro Arg Gln Val Gly Gly Ser Pro
 130 135 140
 Ala Met Pro His Gln Ala Ala Leu Pro Gln Glu Lys Gln Val Trp
 145 150 155 160
 Ala Cys Glu Arg Asp Arg
 165

<210> 1597
 <211> 609

<212> DNA

<213> Homo sapiens

<400> 1597

tcgtcaacgg aaacttcggc cttcgggcct acccataatc cttgggacct tgaacgggta
 60
 ccgggtgggt ccggtgggtg ttcagcagct agcttggctt cctttcaggc cccgttggct
 120
 ttgggcactg ataccggggg ctcgatccgc caacctggag cggtgaccgg caccgtcggg
 180
 atcaagccga cctacgggtc gacctcccga tacggcggtta tcgctatggc ttcattcttg
 240
 gataactctg ggccctgcgc ccgtaccgtc cttgacgccg cgttgcacca tcaggccatt
 300
 gccggtcacg acgctatgga ccagaccacg attaatacgc ccaccccgcc ggtcgttgag
 360
 gctgcgcggc aggcagacgt ttccgggggtg cgcattggcg ttgtcacgga gttgagcggg
 420
 cagggttacg accctcaggt cgaggcccg ttccacgagg ctgtcgagat gctaatagag
 480
 gcgggggctg aggtcgttga ggtctcttgc ccgaactttg acctcgctt acctgcttat
 540
 taccttattc agcctgccga ggtgtctagc aacctggctc gttacgacgc catgcgttac
 600
 ggcttacgc
 609

<210> 1598

<211> 203

<212> PRT

<213> Homo sapiens

<400> 1598

Ser Ser Thr Glu Thr Ser Ala Phe Gly Pro Thr His Asn Pro Trp Asp
 1 5 10 15
 Leu Glu Arg Val Pro Gly Gly Ser Gly Gly Gly Ser Ala Ala Ser Leu
 20 25 30
 Ala Ser Phe Gln Ala Pro Leu Ala Leu Gly Thr Asp Thr Gly Gly Ser
 35 40 45
 Ile Arg Gln Pro Gly Ala Val Thr Gly Thr Val Gly Ile Lys Pro Thr
 50 55 60
 Tyr Gly Ser Thr Ser Arg Tyr Gly Val Ile Ala Met Ala Ser Ser Leu
 65 70 75 80
 Asp Thr Pro Gly Pro Cys Ala Arg Thr Val Leu Asp Ala Ala Leu Leu
 85 90 95
 His Gln Ala Ile Ala Gly His Asp Ala Met Asp Gln Thr Thr Ile Asn
 100 105 110
 Gln Pro Thr Pro Ala Val Val Glu Ala Ala Arg Gln Ala Asp Val Ser
 115 120 125
 Gly Val Arg Ile Gly Val Val Thr Glu Leu Ser Gly Gln Gly Tyr Asp
 130 135 140
 Pro Gln Val Glu Ala Arg Phe His Glu Ala Val Glu Met Leu Ile Glu
 145 150 155 160
 Ala Gly Ala Glu Val Val Glu Val Ser Cys Pro Asn Phe Asp Leu Ala

	165		170		175										
Leu	Pro	Ala	Tyr	Tyr	Leu	Ile	Gln	Pro	Ala	Glu	Val	Ser	Ser	Asn	Leu
			180					185					190		
Ala	Arg	Tyr	Asp	Ala	Met	Arg	Tyr	Gly	Leu	Arg					
		195					200								

<210> 1599
 <211> 526
 <212> DNA
 <213> Homo sapiens

<400> 1599
 gcgtggccga cggctgctgt gtggtcagcg atctttatctt ttcttgatcg attcagaacc
 60
 cggcacctgc acgtgtggtt tctctgcttt tgttggggag cgtgcgtcgc gacctggatt
 120
 agcatgcacg tgaacacgtg gatggccggg atgctctcgg tgacaggtgg ggttgatcca
 180
 gcatcgggag ccgggtccggc agtgtattcg gctccctttg ttgaggaatc atgcaaggcg
 240
 cttgtgcttt tcgcgctggc catcggcatg gggcgacgga tgacctcggg agttcagacg
 300
 gtgagcatgg ccgggctctc ggcaattggt ttcgcctttg ttgagaacat tatgtactac
 360
 gcccgatgcag ataactacgc ccgtgtgacg gcttcgggtg gggaccccaa acaaggcggt
 420
 gatgaagttg gtgctgttgc ggggagtgtg tgccctcgtt gggcatccgc tggtcaccag
 480
 catgacgggt atcgggtctgg cccttggggt gaggtcacga agttga
 526

<210> 1600
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 1600
 Met His Val Asn Thr Trp Met Ala Gly Met Leu Ser Val Thr Gly Gly
 1 5 10 15
 Val Asp Pro Ala Ser Gly Ala Gly Pro Ala Val Tyr Ser Ala Pro Phe
 20 25 30
 Val Glu Glu Ser Cys Lys Ala Leu Val Leu Phe Ala Leu Ala Ile Gly
 35 40 45
 Met Gly Arg Arg Met Thr Ser Val Val Gln Thr Val Ser Met Ala Gly
 50 55 60
 Leu Ser Ala Ile Gly Phe Ala Phe Val Glu Asn Ile Met Tyr Tyr Ala
 65 70 75 80
 Arg Ala Asp Asn Tyr Ala Arg Val Thr Ala Ser Gly Gly Asp Pro Lys
 85 90 95
 Gln Gly Val Asp Glu Val Gly Ala Val Ala Gly Ser Val Cys Leu Val
 100 105 110
 Trp Ala Ser Ala Val His Gln His Asp Gly Tyr Arg Ser Gly Pro Trp
 115 120 125
 Ala Glu Val Thr Lys Leu

130

<210> 1601
 <211> 447
 <212> DNA
 <213> Homo sapiens

<400> 1601
 gccggccgcc ccgtttccgc agattctgga ggagtgccga tggccgagtt catctacacc
 60
 atgcacaacg tccgaaaggc ggtgggtgac aaagttatcc ttgacaatgt cagcgtgtcg
 120
 ttcttccccg ggcgaagat tgggtgtgtc ggaccgaatg gcgctggcaa atcgacgatg
 180
 ctcaagctca tggctggtct cgataagccc aataacggcg atgccaactt ggctaaaggc
 240
 gccaccgtcg gaatcttgct tcaggagccc ccgctcaccg aggacaaaac tgttcgcgag
 300
 aacgtcgaag aggccgtcgg cgacatcaaa gccaagctgg cacggttcga ggaagtctcc
 360
 gccgagatgg ccaaccctga cgccgacttt gacgccctga tggcggagat gggtagactg
 420
 cagaccgagc tcgataacgc caacgcg
 447

<210> 1602
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 1602
 Met Ala Glu Phe Ile Tyr Thr Met His Asn Val Arg Lys Ala Val Gly
 1 5 10 15
 Asp Lys Val Ile Leu Asp Asn Val Thr Leu Ser Phe Phe Pro Gly Ala
 20 25 30
 Lys Ile Gly Val Val Gly Pro Asn Gly Ala Gly Lys Ser Thr Met Leu
 35 40 45
 Lys Leu Met Ala Gly Leu Asp Lys Pro Asn Asn Gly Asp Ala Asn Leu
 50 55 60
 Ala Lys Gly Ala Thr Val Gly Ile Leu Leu Gln Glu Pro Pro Leu Thr
 65 70 75 80
 Glu Asp Lys Thr Val Arg Glu Asn Val Glu Glu Ala Val Gly Asp Ile
 85 90 95
 Lys Ala Lys Leu Ala Arg Phe Glu Glu Val Ser Ala Glu Met Ala Asn
 100 105 110
 Pro Asp Ala Asp Phe Asp Ala Leu Met Ala Glu Met Gly Glu Leu Gln
 115 120 125
 Thr Glu Leu Asp Asn Ala Asn Ala
 130 135

<210> 1603
 <211> 540
 <212> DNA
 <213> Homo sapiens

<400> 1603
 acgcgtaagc tcaccgaagc catgatggca atgctgctgg aactgcatta cagcaagcag
 60
 gaaatccttg aggcgtacct caacgaggtc ttcgtcggtc aggatggcca gcgcgccgtg
 120
 cacgggtttg gcttggccag tcagttcttc tttggccagc ctttgtccga gctgaagttg
 180
 catcaagtcg cgttgttggt cgggatggtc aagggcccgt cctattacaa cccgcggcgc
 240
 aatccggaac gtgcgctcga gcgtcgtaac ctggtgctgg atgtgctgga acagcagggg
 300
 gtagccactg ccgaacaagt cgctgccgca aagaaaatgc cgctgggtgt aaccactcgc
 360
 ggcaagctgg cggacagctc cttcccaggc tttatcgacc tggtaaagc ccagttgcgt
 420
 gaagattacc gcgacgaaga cttgaccgaa gaaggcctgc ggattttcac cagtttcgac
 480
 ccgattctgc agatgaaagc cgaagcatcg gtgaacgaca cattcaagcg cctgaccggc
 540

<210> 1604
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 1604
 Thr Arg Lys Leu Thr Glu Ala Met Met Ala Met Leu Leu Glu Leu His
 1 5 10 15
 Tyr Ser Lys Gln Glu Ile Leu Glu Ala Tyr Leu Asn Glu Val Phe Val
 20 25 30
 Gly Gln Asp Gly Gln Arg Ala Val His Gly Phe Gly Leu Ala Ser Gln
 35 40 45
 Phe Phe Phe Gly Gln Pro Leu Ser Glu Leu Lys Leu His Gln Val Ala
 50 55 60
 Leu Leu Val Gly Met Val Lys Gly Pro Ser Tyr Tyr Asn Pro Arg Arg
 65 70 75 80
 Asn Pro Glu Arg Ala Leu Glu Arg Arg Asn Leu Val Leu Asp Val Leu
 85 90 95
 Glu Gln Gln Gly Val Ala Thr Ala Glu Gln Val Ala Ala Ala Lys Lys
 100 105 110
 Met Pro Leu Gly Val Thr Thr Arg Gly Lys Leu Ala Asp Ser Ser Phe
 115 120 125
 Pro Gly Phe Ile Asp Leu Val Lys Arg Gln Leu Arg Glu Asp Tyr Arg
 130 135 140
 Asp Glu Asp Leu Thr Glu Glu Gly Leu Arg Ile Phe Thr Ser Phe Asp
 145 150 155 160
 Pro Ile Leu Gln Met Lys Ala Glu Ala Ser Val Asn Asp Thr Phe Lys
 165 170 175
 Arg Leu Thr Gly
 180

<210> 1605
 <211> 427

<212> DNA

<213> Homo sapiens

<400> 1605

acgcgttggt gcggtcggtc gcacgcagtc cgtccaagag gtacaggcca gcgttgccgc
60
cattctttgc gggcgggatc tgcactggga tattcgggcc catcgctgt gaccacacat
120
cgcagcgtg gacccaccag cccacctggt cccactcgca cgtgccagta ctgtccgcac
180
gcaagaaatc gcggtgagct gcgtgcgcct gctgggtgcc gcctgccact acggcaagac
240
ccagcgctac ggcgactgcc atgatgaccg aaaggacgcg acccctaata gatgcagtca
300
tctttctcct tcacaaagta ttggtaatt gtcacttagc tttatcgctc ggaatctgtg
360
aaccgttaac atcccgacgc ggaagctaac tagcaagcag tctaatgcac tcccgggcca
420
aatgttg
427

<210> 1606

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1606

Met	Thr	Ala	Ser	Ile	Arg	Gly	Arg	Val	Leu	Ser	Val	Ile	Met	Ala	Val
1				5				10					15		
Ala	Val	Ala	Leu	Gly	Leu	Ala	Val	Val	Ala	Gly	Gly	Thr	Gln	Gln	Ala
			20					25					30		
His	Ala	Ala	His	Arg	Asp	Phe	Leu	Arg	Ala	Asp	Ser	Thr	Gly	Thr	Cys
			35				40					45			
Glu	Trp	Asp	Gln	Val	Gly	Trp	Trp	Val	Gln	Arg	Cys	Asp	Val	Trp	Ser
	50					55					60				
Gln	Ala	Met	Gly	Arg	Asn	Ile	Pro	Val	Gln	Ile	Pro	Pro	Ala	Lys	Asn
65					70					75				80	
Gly	Gly	Asn	Ala	Gly	Leu	Tyr	Leu	Leu	Asp	Gly	Leu	Arg	Ala	Thr	Asp
			85					90						95	
Arg	Thr	Asn	Ala												
			100												

<210> 1607

<211> 396

<212> DNA.

<213> Homo sapiens

<400> 1607

gcacggctcc gctcgcgggc gccgtgatgg tacataccgg cgcgaccgtg atcgattctt
60
tgccgcaagg caatttactt ccacgtcacg gccgatgcga tgaagatgac gattcgtaaa
120
cggatgggac tgatcccgta cgaggcgatc gtgggcgggg cgatgatgat cgtggcgacg
180

ttgctgtacg gattcatttt gtagcataaa taaggagggg ttcgatgaac aggaaaaccc
 240
 tttctgttgg caccggattc gttcaaggaa agcatgacgg caaaagaagt ctgtatcgcg
 300
 atggaaaaag gactgagccg cgtctacccc gacgcccggg ttatccatgt gccgatggcg
 360
 gacggaggcg aaggcacggg gcagtcgctg gtcgac
 396

<210> 1608
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 1608
 Thr Gly Lys Pro Phe Leu Leu Ala Pro Asp Ser Phe Lys Glu Ser Met
 1 5 10 15
 Thr Ala Lys Glu Val Cys Ile Ala Met Glu Lys Gly Leu Ser Arg Val
 20 25 30
 Tyr Pro Asp Ala Arg Phe Ile His Val Pro Met Ala Asp Gly Gly Glu
 35 40 45
 Gly Thr Val Gln Ser Leu Val Asp
 50 55

<210> 1609
 <211> 505
 <212> DNA
 <213> Homo sapiens

<400> 1609
 acgcgtagat gccacagcgc caggacacac gccaccgcgg agccgaggat gatccacatg
 60
 ggctcgactc acatggacgc catggattcg gcagtgaggaga gcaggccgcg agcttcgcac
 120
 gcggccccgac tgcgtagtcg cgtcatctca gtgcacatct gttcttcccc gtcgatgagg
 180
 ttcgcgccgt aggacatcgt tacgtccagc atggtggcga tctcagcaat gtcacagccg
 240
 gccttgtgga gggcgaggag ccgagcgcgc gtgcttcctg ctggcacgat gcgttcacgt
 300
 gctgcgttga tgctgctgat actgatatgc aggatgcgcc cggggtcgaa gacgggggaat
 360
 ggggtgaatt ggacgggtccc ccctggccag cgagtcgttg gacgattcga ctggggacat
 420
 gcgcgagcag ggcgacgaca cgccacggaa cgcggcattc atggacgagg gaacggacat
 480
 ggagcgagaa aaagcggggc tcgac
 505

<210> 1610
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 1610

Met Pro Arg Ser Val Ala Cys Arg Arg Pro Ala Arg Ala Cys Pro Gln
 1 5 10 15
 Ser Asn Arg Pro Thr Thr Arg Trp Pro Gly Gly Thr Val Gln Phe Thr
 20 25 30
 Pro Phe Pro Val Phe Asp Pro Gly Arg Ile Leu His Ile Ser Ile Asp
 35 40 45
 Asp Ile Asn Ala Ala Arg Glu Arg Ile Val Pro Ala Gly Ser Thr Arg
 50 55 60
 Ala Arg Leu Leu Ala Leu His Lys Ala Gly Cys Asp Ile Ala Glu Ile
 65 70 75 80
 Ala Thr Met Leu Asp Val Thr Met Ser Tyr Ala Ala Asn Leu Met Ser
 85 90 95
 Gly Glu Glu Gln Met Cys Thr Glu Met Thr Arg Leu Arg Ser Arg Ala
 100 105 110
 Ala Cys Glu Ala Arg Gly Leu Leu Ser Thr Ala Glu Ser Met Ala Ser
 115 120 125
 Met

<210> 1611

<211> 532

<212> DNA

<213> Homo sapiens

<400> 1611

acgcgtgctg cgtttacagt tgcgtctatt gatttaggtg cgcattccaga atttttagga
 60
 aaaaatgata ttcaattagg caaaaaagaa tctgtagagg atactgcgaa agtattaggt
 120
 agaatgttcg atggtattga attccgtggt ttttcacaac aagctggtga agatttagcg
 180
 aagttctctg gtgtaccggg gtggaatgga ttaacagacg attggcatcc tacacaaatg
 240
 ttagctgatt ttatgacaat aaaagagaat tttggatatc tagaaggaat aaacttaact
 300
 tacgttgagg atggacgtaa taatattgcg cattcattaa tggttagcagg tgctatgtta
 360
 ggtgttaatg taagaatttg tacacctaaa tcattaaatc caaaagaggc atatgttgat
 420
 attgcaaaaag aaaaagcgag tcaatatggt gggttcagtca tgattacgga taatattgca
 480
 gaagcagttg aaaatacaga tgctatatat acagatgttt gggatatcgac gg
 532

<210> 1612

<211> 177

<212> PRT

<213> Homo sapiens

<400> 1612

Thr Arg Ala Ala Phe Thr Val Ala Ser Ile Asp Leu Gly Ala His Pro
 1 5 10 15
 Glu Phe Leu Gly Lys Asn Asp Ile Gln Leu Gly Lys Lys Glu Ser Val

20 25 30
 Glu Asp Thr Ala Lys Val Leu Gly Arg Met Phe Asp Gly Ile Glu Phe
 35 40 45
 Arg Gly Phe Ser Gln Gln Ala Gly Glu Asp Leu Ala Lys Phe Ser Gly
 50 55 60
 Val Pro Gly Trp Asn Gly Leu Thr Asp Asp Trp His Pro Thr Gln Met
 65 70 75 80
 Leu Ala Asp Phe Met Thr Ile Lys Glu Asn Phe Gly Tyr Leu Glu Gly
 85 90 95
 Ile Asn Leu Thr Tyr Val Gly Asp Gly Arg Asn Asn Ile Ala His Ser
 100 105 110
 Leu Met Val Ala Gly Ala Met Leu Gly Val Asn Val Arg Ile Cys Thr
 115 120 125
 Pro Lys Ser Leu Asn Pro Lys Glu Ala Tyr Val Asp Ile Ala Lys Glu
 130 135 140
 Lys Ala Ser Gln Tyr Gly Gly Ser Val Met Ile Thr Asp Asn Ile Ala
 145 150 155 160
 Glu Ala Val Glu Asn Thr Asp Ala Ile Tyr Thr Asp Val Trp Val Ser
 165 170 175
 Thr

<210> 1613
 <211> 584
 <212> DNA
 <213> Homo sapiens

<400> 1613
 nnacgcgttc agccgagaaa tatgctgctt tttgcctgcc acctcacaaa tgctacggca
 60
 cagggcgctc aggttttgcg cctcctggta cgttgctaca cacttgetca cctcccagcg
 120
 gtatcaatac aacttgcgaa atgcagacaa ggcccaggcc taagacatgg tagacataca
 180
 tatatacaag gaattcacta tatattgggt gaaaggagat cttcccgttc ctgttcttcc
 240
 tctgccgcat cctgtgaagc gttcagggag gtcgacatgg ataagtgcg tatgcctggc
 300
 acggtaaagt gtcgcgggct ttagatgcg tgtgaacgtt ttcgtgactt gaagaggtcg
 360
 aagctgatgt gtccgcgtga gctcgatgca gcgcgtgcg ttgcgtgcct tgtggtcgat
 420
 cgtcgccccg atccgataga atgcggagtt gtattttcgt agtactgtc gacaatgcca
 480
 gtggcgagg cgatgagttc ctcatctgcg tctttctcga ggtcttggtc catgtccata
 540
 aacataccaa agctggatgg gtcatacgac ggccgagcat gcat
 584

<210> 1614
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 1614

Xaa Arg Val Gln Pro Arg Asn Met Leu Leu Phe Ala Cys His Leu Thr
 1 5 10 15
 Asn Ala Thr Ala Gln Gly Val Gln Val Leu Arg Leu Leu Val Arg Cys
 20 25 30
 Tyr Thr Leu Ala His Leu Pro Ala Val Ser Ile Gln Leu Ala Lys Cys
 35 40 45
 Arg Gln Gly Pro Gly Leu Arg His Gly Arg His Thr Tyr Ile Gln Gly
 50 55 60
 Ile His Tyr Ile Leu Gly Glu Arg Arg Ser Ser Arg Ser Cys Ser Ser
 65 70 75 80
 Ser Ala Ala Ser Cys Glu Ala Phe Arg Glu Val Asp Met Asp Asn Val
 85 90 95
 Arg Met Pro Gly Thr Val Lys Cys Arg Gly Leu Val Asp Ala Cys Glu
 100 105 110
 Arg Phe Arg Asp Leu Lys Arg Ser Lys Leu Met Cys Ser Arg Glu Leu
 115 120 125
 Asp Ala Ala Arg Cys Val Ala Cys Leu Val Val Asp Arg Arg Pro Asp
 130 135 140
 Pro Ile Glu Cys Gly Val Val Phe Ser
 145 150

<210> 1615

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1615

gccggttgcc ccgacgcgtc tatgggtgat gttctgtcct ctgtcgtcgg gccgtggggc
 60
 tcggtgcttg tcagtgtcgg tgtcatcatt tccctgcttg gggctctact ggcctggatc
 120
 ctactgtgcg gtgagacgat gcaggtgccg ggtgaggacg gcaccatgcc gaaactgttc
 180
 ggacggatca acaaacatga ggtccagct cccgctttgt ggatcaccaa catcgtctcc
 240
 cagatatgcc ttgtcatgac ggtgttgtgg gacggtgctt acttggcgat ggcgacctg
 300
 gctgccgccc tcctcctggt gccgtacctg ctgtcagccg cattcgcctt gaagatgggtg
 360
 atc
 363

<210> 1616

<211> 121

<212> PRT

<213> Homo sapiens

<400> 1616

Ala Gly Leu Pro Asp Ala Ser Met Gly Asp Val Leu Ser Ser Val Val
 1 5 10 15
 Gly Pro Trp Gly Ser Val Leu Val Ser Ala Gly Val Ile Ile Ser Leu
 20 25 30
 Leu Gly Ala Leu Leu Ala Trp Ile Leu Leu Cys Gly Glu Thr Met Gln


```

      35          40          45
Val Pro Gly Glu Asp Gly Thr Met Pro Lys Leu Phe Gly Arg Ile Asn
      50          55          60
Lys His Glu Ala Pro Ala Pro Ala Leu Trp Ile Thr Asn Ile Val Ser
65          70          75          80
Gln Ile Cys Leu Val Met Thr Val Leu Trp Asp Gly Ala Tyr Leu Ala
      85          90          95
Met Ala Thr Leu Ala Ala Ala Leu Ile Leu Val Pro Tyr Leu Leu Ser
      100          105          110
Ala Ala Phe Ala Leu Lys Met Val Ile
      115          120

```

<210> 1617

<211> 447

<212> DNA

<213> Homo sapiens

<400> 1617

```

accggtgact acctgtggga gaagaagggc atcggtccca tcctcaagat tgataagggc
60
ctggctgacg agggctgccca cgttcgtctc atgaagccga ttcccggcct cgacgagttg
120
gtgcaccgcg ccgtcgagga gaagcacatc ttcggtacca aggagcgctc tgtcatcctg
180
gatgacgaca aagctggcat cgaaaagatt gtcgaccagc agttcgaact ggccgaacag
240
gtgcgcgctg cgggtcttgt gccgatcctc gaacccgagg tcgacatcca cgctccacat
300
aaggagaagg ctgaggaaag gctgcacaac ctcacccgag agcacatcga ctctctgccc
360
ctcgacgcca agatcatgtt gaagctgacg atcccagatt ccgaagacct gtatgccgac
420
ctcattgcgg atccgaaggt cctacgc
447

```

<210> 1618

<211> 149

<212> PRT

<213> Homo sapiens

<400> 1618

```

Thr Gly Asp Tyr Leu Trp Glu Lys Lys Gly Ile Val Pro Ile Leu Lys
1          5          10          15
Ile Asp Lys Gly Leu Ala Asp Glu Gly Cys His Val Arg Leu Met Lys
      20          25          30
Pro Ile Pro Gly Leu Asp Glu Leu Val His Arg Ala Val Glu Glu Lys
      35          40          45
His Ile Phe Gly Thr Lys Glu Arg Ser Val Ile Leu Asp Asp Asp Lys
      50          55          60
Ala Gly Ile Glu Lys Ile Val Asp Gln Gln Phe Glu Leu Ala Glu Gln
65          70          75          80
Val Arg Ala Ala Gly Leu Val Pro Ile Leu Glu Pro Glu Val Asp Ile
      85          90          95
His Ala Pro His Lys Glu Lys Ala Glu Glu Arg Leu His Asn Leu Ile

```


100 105 110
 Arg Glu His Ile Asp Ser Leu Pro Leu Asp Ala Lys Ile Met Leu Lys
 115 120 125
 Leu Thr Ile Pro Ser Ser Glu Asp Leu Tyr Ala Asp Leu Ile Ala Asp
 130 135 140
 Pro Lys Val Leu Arg
 145

<210> 1619
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 1619
 nnggtaccga aaccctgtgc gctaccgcat aaaatcaaag gaactagtat gcataacgta
 60
 acaacaaatg gtgcctccat tcccgccctt ggccttggca ctttccgtat gcccggcgaa
 120
 gatgtgcttc gcacgtcccc ttacgcgctc aaggctgggtt ttcgccatgt cgataccgcg
 180
 cagatttatg gcaatgaagt cgaggctcggg gaagcaattg cgacttccgg cgttcagcgt
 240
 ggcgacatct ttctgaccac aaaagtctgg gtagataatt ataagcatga tgctttcacc
 300
 gcattctgtcg atgaaagcct taccaagctt aagaccgact atgtcgatct gctgc
 355

<210> 1620
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 1620
 Xaa Val Pro Lys Pro Val Ser Leu Pro His Lys Ile Lys Gly Thr Ser
 1 5 10 15
 Met His Asn Val Thr Thr Asn Gly Ala Ser Ile Pro Ala Leu Gly Leu
 20 25 30
 Gly Thr Phe Arg Met Pro Gly Glu Asp Val Leu Arg Ile Val Pro Tyr
 35 40 45
 Ala Leu Lys Ala Gly Phe Arg His Val Asp Thr Ala Gln Ile Tyr Gly
 50 55 60
 Asn Glu Val Glu Val Gly Glu Ala Ile Ala Thr Ser Gly Val Gln Arg
 65 70 75 80
 Gly Asp Ile Phe Leu Thr Thr Lys Val Trp Val Asp Asn Tyr Lys His
 85 90 95
 Asp Ala Phe Ile Ala Ser Val Asp Glu Ser Leu Thr Lys Leu Lys Thr
 100 105 110
 Asp Tyr Val Asp Leu Leu
 115

<210> 1621
 <211> 386
 <212> DNA
 <213> Homo sapiens

<400> 1621
 gcgcgccatg gaggcgcccc gggtcgcgcc aggatgctcc aggccaaagtg aagcgggtccg
 60
 gctgggggtcg gcgggacccg cgggccatgt acggcgacat attcaacgcc acggggcggg
 120
 cccccgaggc ggcggtaggc agcgcgctgg ccccaggagc cacgggtcaag gcagaaggcg
 180
 ctttgcgct ggagctggcc actgcgcgcg gtatgaggga cggcgcgcc acaaagcccg
 240
 acctgccac ctacctgctg ctcttcttcc tgctgctgct ctggggggcg ctggcgggcc
 300
 tcttcacgg ttgccagctg cgccattcgg ccttcgccgc gctgccccac gaccgcttcg
 360
 ctgcgcacgc ccgcgcgccc ggaagg
 386

<210> 1622
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 1622
 Met Glu Ala Pro Arg Val Ala Pro Gly Cys Ser Arg Pro Ser Glu Ala
 1 5 10 15
 Val Arg Leu Gly Ser Ala Gly Pro Ala Gly His Val Arg Arg His Ile
 20 25 30
 Gln Arg His Gly Ala Gly Pro Arg Gly Gly Gly Arg Gln Arg Ala Gly
 35 40 45
 Pro Arg Ser His Gly Gln Gly Arg Arg Arg Phe Ala Ala Gly Ala Gly
 50 55 60
 His Cys Ala Arg Tyr Glu Gly Arg Arg Gly His Lys Ala Arg Pro Ala
 65 70 75 80
 His Leu Pro Ala Ala Leu Leu Pro Ala Ala Ala Leu Gly Gly Ala Arg
 85 90 95
 Arg Pro Leu His Arg Leu Pro Ala Ala Pro Phe Gly Leu Arg Arg Ala
 100 105 110
 Ala Pro Arg Pro Leu Arg Ser Arg Arg Pro Arg Ala Arg Lys
 115 120 125

<210> 1623
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 1623
 nctggtgcc agagcctcgt cgggggtccag ccccagggcc ttgcgagtc agacacttgg
 60
 ggcccttgct tgtggttttt ctgggagctt tgggccgagg gttccccgga cccttcctg
 120
 aacttttccg cagtttcaga ggagagtctg caagtgagag ctgcagtgac tgtgccttgc
 180
 gcttggcacc caagcagggc atgggagtct taagtggaac cagggcctca aggacaacag
 240

agagccgcat ggcagggttag acacctggat aaaagtgggt gggggaagcc cactgctgca
 300
 ccccgggcat tgct
 314

<210> 1624
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 1624
 Met Pro Gly Val Gln Gln Trp Ala Ser Pro Thr His Phe Tyr Pro Gly
 1 5 10 15
 Val Tyr Pro Ala Met Arg Leu Ser Val Val Leu Glu Ala Leu Val Pro
 20 25 30
 Leu Lys Thr Pro Met Pro Cys Leu Gly Ala Lys His Lys Ala Gln Ser
 35 40 45
 Leu Gln Leu Ser Leu Ala Asp Ser Pro Leu Lys Leu Arg Lys Ser Ser
 50 55 60
 Gly Lys Gly Pro Gly Asn Pro Arg Pro Lys Ala Pro Arg Lys Thr Thr
 65 70 75 80
 Ser Lys Gly Pro Lys Cys Leu Thr Arg Lys Gly Pro Gly Ala Gly Pro
 85 90 95
 Arg Arg Gly Ser Gly His Gln
 100

<210> 1625
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 1625
 acgcgtactc agcagcaagt tctgctgagc cccaaatcca cacagactga gcctggacca
 60
 gggctggggc ctccttatcc aagccaatcc agggaaacac tgtgctgact tcaaggcaga
 120
 agggacaaga aagcatgact gtgcacaaat tggctttgca gccatctcca ccaggtagcc
 180
 ctggggagcac ctgggaagaa gccggggccat gcaggggagcc caacctcacc ctgcattcag
 240
 aaccgggcct tggaatggcc tgatctgagc cctagcaccc ctgggaagcc gcccaccttt
 300
 cttctggcct ctgggaagaa gatgggaatt ttaaggccat gggagaagac actcctggat
 360
 tctttcagct tctccaccca cccctgctc cagatgtaat ctgggaagac tggggagtca
 420
 ggggcacagt gagttggagc aggggattgg agggtttgtg ggacagcctt ccagggcacc
 480
 tcaggagctg aattatttaa gccagctgcc cgtggggccc gctcccagcc cttcctgttt
 540
 acacagactc cgtccatagc agacaccttc ccagagcctg ggtgacaata ggctgggtgt
 600
 gttttctgca atcttatag
 619

<210> 1626
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 1626
 Met Asp Gly Val Cys Val Asn Arg Lys Gly Trp Glu Arg Gly Pro Arg
 1 5 10 15
 Ala Ala Gly Leu Asn Asn Ser Ala Pro Glu Val Pro Trp Lys Ala Val
 20 25 30
 Pro Gln Thr Leu Gln Ser Pro Ala Pro Thr His Cys Ala Pro Asp Ser
 35 40 45
 Pro Val Phe Pro Asp Tyr Ile Trp Ser Arg Gly Trp Val Glu Lys Leu
 50 55 60
 Lys Glu Ser Arg Ser Val Phe Ser His Gly Leu Lys Ile Pro Ile Phe
 65 70 75 80
 Phe Pro Glu Ala Arg Arg Lys Val Gly Gly Phe Pro Gly Val Leu Gly
 85 90 95
 Leu Arg Ser Gly His Ser Lys Ala Arg Phe
 100 105

<210> 1627
 <211> 481
 <212> DNA
 <213> Homo sapiens

<400> 1627
 naccggtgcg ttgtgcccacat gccttgctga acaaggccat ataggccgta ccgacgtgag
 60
 gatcaccagt gggcgagggg gcaacgcgcg tgcgcgcggg atgcaaatca gtcacgatga
 120
 cacgaagtct atcgggatcc gctgacagac tccggtaaag ttcccgccat ggcagaacct
 180
 actggaaacc cggctgagtc cagctcggac ttcattcattc aggttggttcg cgcggacatc
 240
 caacaggaca cctacggcgg gcgcgtccag acccggttcc cacctgagcc taacggctac
 300
 ctccacattg gccacgcgaa ggccatcgtc accgatttcg gcgttgccga ggatttcggc
 360
 ggcacctgca acctgagact tgatgatact aatccaggca ccgaggaaac cgagtatgtc
 420
 gagtcatcg ttgcagacat tgagtgggta gggtactccc cggcccacgt tgtccacgcg
 480
 t
 481

<210> 1628
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 1628
 Met Ala Glu Pro Thr Gly Asn Pro Ala Glu Ser Ser Ser Asp Phe Ile

1	5	10	15
His Gln Val Val Arg Ala Asp Ile Gln Gln Asp Thr Tyr Gly Gly Arg			
20	25	30	
Val Gln Thr Arg Phe Pro Pro Glu Pro Asn Gly Tyr Leu His Ile Gly			
35	40	45	
His Ala Lys Ala Ile Val Thr Asp Phe Gly Val Ala Glu Asp Phe Gly			
50	55	60	
Gly Thr Cys Asn Leu Arg Leu Asp Asp Thr Asn Pro Gly Thr Glu Glu			
65	70	75	80
Thr Glu Tyr Val Glu Ser Ile Val Ala Asp Ile Glu Trp Leu Gly Tyr			
85	90	95	
Ser Pro Ala His Val Val His Ala			
100			

<210> 1629

<211> 4519

<212> DNA

<213> Homo sapiens

<400> 1629

```

ccaaattgct gggaatgtcc aaagtgtctac caggaggaca gctcggagaa agcccagaag
60
cggaaaatgg aagagagtga cgaagaagct gtgcaagcca aagtctctcg gcccttgcgg
120
agctgcgatg agcctctcac gccccgcct cattcaccca ctccatgct gcagctcatc
180
catgaccctg tttccccccg gggatatggtg actcgggtcat cccctggggc tggccccagc
240
gaccaccaca gtgccagccg cgatgagcgc ttcaaacggc ggcagttgct gcgggtgcag
300
gccacagagc gcaccatggt acgggaaaag gagaacaatc ccagcggcaa aaaggagctg
360
tctgaagttg agaaagccaa gatccgggga tcgtacctca ctgtcacgct acagaggccc
420
accaaagagc tccacgggac atccattgtg cccaagctgc aggccatcac ggctctctct
480
gccaaccttc gccattcccc ccgtgtgcta gtgcagcact gccagccccg aacccccag
540
cgtggggatg aggaggggct ggggggagag gaggaggaag aggaggagga ggaggaggaa
600
gatgacagtg cagaggaggg ggggtgcagcc aggtgaatg gccggggcag ttgggctcag
660
gatggagacg aaagctggat gcagcgggag gtctggatgt ctgtcttccg ctacctcagc
720
cgcagagaac tttgtgaatg tatgagtg tgcaagacgt ggtataaatg gtgctgcgac
780
aagagacttt ggacaaaaat tgacttgagt aggtgtaagg ccattgtgcc ccaggccctc
840
agtggcatca tcaagaggca gccagtcagc cttgacctca gttggaccaa catctctaaa
900
aagcaactga catggctcgt caataggctg ccaggactga aagacctcct cctagcaggc
960
tgctcctggt ctgcagtctc tgccctcagc acctccagct gcccccttct caggaccctt
1020

```


gatcttcggt gggcagtagg aatcaaggac cctcaaattc gggacttgct tactccaccg
1080
gctgataaac caggtcagga caatcgcagc aagctccgga acatgaccga cttccggctg
1140
gcaggccttg acatcacaga tgccacgctt cgcctcataa ttccccacat gcccctcctg
1200
tctcgactcg acctcagtca ctgcagccac cttacagatc agtcctccaa tctactcact
1260
gctgtcgggt cttccactcg ctactctctc acagagctca atatggcagg ttgcaataaa
1320
ttgacagacc agaccctgat ctacctacgg cgcattgcc aagtcacctt gatcgacctt
1380
cgaggatgca agcagatcac tcgaaaagcc tgcgagcact tcatctcaga cttgtccatc
1440
aacagcctct actgcctgtc tgacgagaag ctgatacaga agatcagcta agacacaccc
1500
agcccagatt caacaggaaa ccgatcttcc cctgactccc caccgaggag agcctctcct
1560
cgacctgca cgggctctgg ggccagcgtc aactccctc tctgctctcc tgtcccttga
1620
gcccctctc tacagggtgg gcagagaggg tgggtggacac caggcttata tgccctgctc
1680
tctccctcct aaggaaaagg gagtagcaga ttgatctgag gggaaagcac aggctgtgct
1740
gtcgaggcgc ctgctcgtt actcgctgc caggaggccg ggctctcagt ttgggggtgt
1800
tgtgcaacct tcatctgcac tgggccctgt gcccctctc cccatccatg gtcccagca
1860
gtgcctggtt ctgagcaaac tcccagggaa gaaaacggcc ctgtctccat ggccagggtc
1920
ttgtggtgtc cagtgcgct ctctctcca tcacactctc ccggcttgcg caggaggggc
1980
cagcagcccc aggagtccca gaccctgccc gatcacactg gtgctgttga gatctcccaa
2040
acctcacgtc cttaactgtg ctctccctcc ttctctctcc cttgagcttg gttctgccc
2100
gcactcgtgc ttgttcacat aattaggttt cccaccccag cctaccgcac ttacttgcta
2160
gtctctatga ggtccttatt gcacttattg gggttgaagc tcttcagagg agctggaact
2220
gtctacccca gggacacacc catttcgttg ctaccaagt ggattctgag acaggcacca
2280
tctccttggt cccctctct ctcttgcctc ccaactgactg ccttttcca tgtgtcttca
2340
ttctgcctga agaaggcttt cccaggatgc acgtcctcag agggagcagc ctatctcccc
2400
caagctggag gcggcagagg actgggcca gcccacact gcctccagc caggctcctc
2460
caggcctctg gtttagcgga gcccctgag cccaggcctg tgtctagccc cagtggctca
2520
ctgaactttc agggcagtca gggggctcctg cttagaagcc agtcaccagc cctctgcctg
2580
cagccatgga aggggggtgt cactgcctc tgtgtgtgtg gctgagtgtt ttctgcgct
2640

gtgtgtggag ggagggaggg aggggagcat ggtgtctccc gctccaccgc cctttgttga
2700
gccccatcag ctgccccctt ttacttttga ttgaacggcc tgtccaaaga tcctctctct
2760
agggcagcag agagcttttt gcacttttaa aaaaaaaga aagaaagaaa ggtcggaatt
2820
tcttttgggt caatattttt aagtgtgtga ggagatgctc agtagcagca gcctatggca
2880
agagcttata aatgattgat gcaaatttgc actctgctcc ccctctgtaa ggatactgat
2940
agcacaacct ctcccccca ccccgccccg ccttttgggt gtccatccct gtccctttct
3000
ggcctcttct ctgtagccca gtctcaggct ttcctcttcc tgaagcccta cagagttagg
3060
gaatggagcc caggcaccag gggctctaaag tgtgagccac tgagaagaga gacgccaact
3120
gcacccttgc cacttccaaa gcaatagagg cagagtgggt ccctctttgc cacctaggcc
3180
agttttgacc ctggcattaa ctggccttag aagaaactgg atcctggtag ggggtggcat
3240
ttgtttgtt tcttccaatc tgctgaatct tttgactgca ccttaciaaac agcagtctgc
3300
tcccatgacc ctctgccac ttccattggt ctccaggccc caataatctg gggttgaaac
3360
tttgaggaaa tgccagtgc ttattccaga gtgcctcagt taggggaact tctctgtaaa
3420
gaaccctggg tattgagcaa aaaccttatt atcgtaatg acctataatt ggaagcttcc
3480
tgcccttttc tttggttgc cctgtggaaa atactgaaaa gattactttg ttttattttg
3540
ttgtctttt ataaaagggg aggtggagag accccttcag agcagggatt gtgccgggag
3600
agtgcctctg actttgggac atttcatcca cagaaatttc caagccaatg gtttcttttg
3660
ggttttgggt tttatgtttg ttttttgggg tttggaaaa catgcatttt taccgtgcac
3720
gtaaattggt cagcagaaaa gggagcccag aaaaggcagc agatggacca tgccttgc
3780
gggttttcct tttctttggg actgtgaggg gaaatgggtt ttagaggtga gggttggtcc
3840
atgtggagga aagaagtgtc tctgttgggg gacagaggaa cctggggagt ccatcgcatg
3900
tctacaatc tgctcttaga caggcccttg ccaggagagc ctgccctcag actgcaggac
3960
cagaacctt gcctccatct ttccaagcac cggggcgaaa aaccacaaag gaaaggaaga
4020
aaatttatat atatataata taaaatcact tgggtgattaa aaaaataact gtcctataaa
4080
taaaactcct aaagtcactt atgtttaaag ggtttggttg tgttttttgt ttttcggaga
4140
aatattgtaa atatataatt tttgttgc gatttagagt caatctcaa tgttgtgcta
4200
aaaagttaa attaaatgta agcattaagg ggataagtct tatgctatct cagttgacac
4260

attgaggtta ttttgggcca gagaaggagg aagctagttg gactttgttt tgttttccaa
 4320
 aagttctcca ctattgggtt tagagagagc aaggacatct ttcctctgac acgtgggaat
 4380
 gggatatt tgtgtaataa aatttttaaa agacaaaaaa agaaatagcc tccaatggga
 4440
 aatattttta tttagggttt gtttttggtt ggggggtttt gtttttttaa aaaaataaaa
 4500
 aggttttaaa aacaaaaaa
 4519

<210> 1630

<211> 496

<212> PRT

<213> Homo sapiens

<400> 1630

Pro	Asn	Cys	Trp	Glu	Cys	Pro	Lys	Cys	Tyr	Gln	Glu	Asp	Ser	Ser	Glu
1				5					10					15	
Lys	Ala	Gln	Lys	Arg	Lys	Met	Glu	Glu	Ser	Asp	Glu	Glu	Ala	Val	Gln
		20					25						30		
Ala	Lys	Val	Leu	Arg	Pro	Leu	Arg	Ser	Cys	Asp	Glu	Pro	Leu	Thr	Pro
		35				40					45				
Pro	Pro	His	Ser	Pro	Thr	Ser	Met	Leu	Gln	Leu	Ile	His	Asp	Pro	Val
		50				55					60				
Ser	Pro	Arg	Gly	Met	Val	Thr	Arg	Ser	Ser	Pro	Gly	Ala	Gly	Pro	Ser
65				70					75					80	
Asp	His	His	Ser	Ala	Ser	Arg	Asp	Glu	Arg	Phe	Lys	Arg	Arg	Gln	Leu
			85					90						95	
Leu	Arg	Leu	Gln	Ala	Thr	Glu	Arg	Thr	Met	Val	Arg	Glu	Lys	Glu	Asn
		100						105				110			
Asn	Pro	Ser	Gly	Lys	Lys	Glu	Leu	Ser	Glu	Val	Glu	Lys	Ala	Lys	Ile
		115				120						125			
Arg	Gly	Ser	Tyr	Leu	Thr	Val	Thr	Leu	Gln	Arg	Pro	Thr	Lys	Glu	Leu
		130				135					140				
His	Gly	Thr	Ser	Ile	Val	Pro	Lys	Leu	Gln	Ala	Ile	Thr	Ala	Ser	Ser
145				150					155					160	
Ala	Asn	Leu	Arg	His	Ser	Pro	Arg	Val	Leu	Val	Gln	His	Cys	Pro	Ala
			165					170						175	
Arg	Thr	Pro	Gln	Arg	Gly	Asp	Glu	Glu	Gly	Leu	Gly	Gly	Glu	Glu	Glu
		180						185					190		
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Asp	Ser	Ala	Glu	Glu	Gly	Gly
		195					200					205			
Ala	Ala	Arg	Leu	Asn	Gly	Arg	Gly	Ser	Trp	Ala	Gln	Asp	Gly	Asp	Glu
		210				215						220			
Ser	Trp	Met	Gln	Arg	Glu	Val	Trp	Met	Ser	Val	Phe	Arg	Tyr	Leu	Ser
225				230						235				240	
Arg	Arg	Glu	Leu	Cys	Glu	Cys	Met	Arg	Val	Cys	Lys	Thr	Trp	Tyr	Lys
			245					250						255	
Trp	Cys	Cys	Asp	Lys	Arg	Leu	Trp	Thr	Lys	Ile	Asp	Leu	Ser	Arg	Cys
			260					265					270		
Lys	Ala	Ile	Val	Pro	Gln	Ala	Leu	Ser	Gly	Ile	Ile	Lys	Arg	Gln	Pro
		275					280					285			
Val	Ser	Leu	Asp	Leu	Ser	Trp	Thr	Asn	Ile	Ser	Lys	Lys	Gln	Leu	Thr

290 295 300
 Trp Leu Val Asn Arg Leu Pro Gly Leu Lys Asp Leu Leu Leu Ala Gly
 305 310 315 320
 Cys Ser Trp Ser Ala Val Ser Ala Leu Ser Thr Ser Ser Cys Pro Leu
 325 330 335
 Leu Arg Thr Leu Asp Leu Arg Trp Ala Val Gly Ile Lys Asp Pro Gln
 340 345 350
 Ile Arg Asp Leu Leu Thr Pro Pro Ala Asp Lys Pro Gly Gln Asp Asn
 355 360 365
 Arg Ser Lys Leu Arg Asn Met Thr Asp Phe Arg Leu Ala Gly Leu Asp
 370 375 380
 Ile Thr Asp Ala Thr Leu Arg Leu Ile Ile Arg His Met Pro Leu Leu
 385 390 395 400
 Ser Arg Leu Asp Leu Ser His Cys Ser His Leu Thr Asp Gln Ser Ser
 405 410 415
 Asn Leu Leu Thr Ala Val Gly Ser Ser Thr Arg Tyr Ser Leu Thr Glu
 420 425 430
 Leu Asn Met Ala Gly Cys Asn Lys Leu Thr Asp Gln Thr Leu Ile Tyr
 435 440 445
 Leu Arg Arg Ile Ala Asn Val Thr Leu Ile Asp Leu Arg Gly Cys Lys
 450 455 460
 Gln Ile Thr Arg Lys Ala Cys Glu His Phe Ile Ser Asp Leu Ser Ile
 465 470 475 480
 Asn Ser Leu Tyr Cys Leu Ser Asp Glu Lys Leu Ile Gln Lys Ile Ser
 485 490 495

<210> 1631

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1631

acgcgtgctc agccaagcct tagatgaaaa tgcgcttgct gacttttgtg cgatgcaatg
 60
 tcagaacccg aacacacgtg cttcagacat ggcgggatgg aagacacttc agactctttt
 120
 ccatgttgac tctcgcgacg agcttggtga gttgcttggc ttttcgaaag acgacattac
 180
 caaccaagtt cagcaagctg tggg'gcctt gggtttaccg ccactagaag atgaaaacgc
 240
 acaaggtgaa gatccggcgt cgcaggtccc gccagtcacc gacgaggacc ccactgcttt
 300
 cttcgatcaa gttccagatg tgcctctaga
 330

<210> 1632

<211> 92

<212> PRT

<213> Homo sapiens

<400> 1632

Met Gln Cys Gln Asn Pro Asn Thr Arg Ala Ser Asp Met Ala Gly Trp
 1 5 10 15
 Lys Thr Leu Gln Thr Leu Phe His Val Asp Ser Arg Asp Glu Leu Val


```
<210> 1633
<211> 259
<212> DNA
<213> Homo sapiens
```

```
<210> 1634
<211> 86
<212> PRT
<213> Homo sapiens
```

```
<210> 1635
<211> 792
<212> DNA
<213> Homo sapiens
```

1311

aagatggcgg ctcatctgtc ctacggccga gtgaacctaa acgtgttgcg cgaggcgggtg
120
cgtcgcgagc tgcgcgagtt cctggacaag tgcgcaggaa gcaaggcaat agtttgggat
180
gaatacctaa ctggaccctt tggcctgatt gcacagtatt cactattgaa ggaacatgaa
240
gtggaaaaaa tgttcacact taaaggaaat cgtttgccgg cagctgatgt gaagaatata
300
atTTTTTTtg tcagaccag gctagagttg atggatataa tcgctgaaaa cgtgctcagt
360
gaagatagac gaggcccaac gagagatttt catattctgt ttgtgccacg ccgtagcctg
420
ttgtgcgaac agcgggtgaa ggatctgggt gtcttgggat cctttattca caggaggag
480
tacagcttag atctcattcc attcgatggg gatctcttat ccatggaatc agagggtgca
540
ttcaaagagt gctacctgga gggtgaccag acgagcctgt accacgcagc caaggggctg
600
atgaccctgc aagctctgta tggaacgac cccagatct ttgggaaagg agaatgcgct
660
cgggtgagaa cgggctgctt tgtggtggta aaggagggcc cttcacaccc caaaggagg
720
gaggaacggg aagctcctta caaacaatt cagttgatct taattattta tgaatactgt
780
actcatgaat tc
792

<210> 1636

<211> 243

<212> PRT

<213> Homo sapiens

<400> 1636

Met	Ala	Ala	His	Leu	Ser	Tyr	Gly	Arg	Val	Asn	Leu	Asn	Val	Leu	Arg
1			5					10					15		
Glu	Ala	Val	Arg	Arg	Glu	Leu	Arg	Glu	Phe	Leu	Asp	Lys	Cys	Ala	Gly
			20					25					30		
Ser	Lys	Ala	Ile	Val	Trp	Asp	Glu	Tyr	Leu	Thr	Gly	Pro	Phe	Gly	Leu
		35					40					45			
Ile	Ala	Gln	Tyr	Ser	Leu	Leu	Lys	Glu	His	Glu	Val	Glu	Lys	Met	Phe
		50					55				60				
Thr	Leu	Lys	Gly	Asn	Arg	Leu	Pro	Ala	Ala	Asp	Val	Lys	Asn	Ile	Ile
65					70					75				80	
Phe	Phe	Val	Arg	Pro	Arg	Leu	Glu	Leu	Met	Asp	Ile	Ile	Ala	Glu	Asn
			85						90					95	
Val	Leu	Ser	Glu	Asp	Arg	Arg	Gly	Pro	Thr	Arg	Asp	Phe	His	Ile	Leu
			100					105					110		
Phe	Val	Pro	Arg	Arg	Ser	Leu	Leu	Cys	Glu	Gln	Arg	Leu	Lys	Asp	Leu
		115					120						125		
Gly	Val	Leu	Gly	Ser	Phe	Ile	His	Arg	Glu	Glu	Tyr	Ser	Leu	Asp	Leu
		130					135						140		
Ile	Pro	Phe	Asp	Gly	Asp	Leu	Leu	Ser	Met	Glu	Ser	Glu	Gly	Ala	Phe
145					150					155					160
Lys	Glu	Cys	Tyr	Leu	Glu	Gly	Asp	Gln	Thr	Ser	Leu	Tyr	His	Ala	Ala

165 170 175
 Lys Gly Leu Met Thr Leu Gln Ala Leu Tyr Gly Thr Ile Pro Gln Ile
 180 185 190
 Phe Gly Lys Gly Glu Cys Ala Arg Val Arg Thr Gly Cys Phe Val Val
 195 200 205
 Val Lys Glu Gly Pro Ser His Pro Lys Arg Glu Glu Glu Arg Glu Ala
 210 215 220
 Pro Tyr Lys Gln Ile Gln Leu Ile Leu Ile Ile Tyr Glu Tyr Cys Thr
 225 230 235 240
 His Glu Phe

<210> 1637

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1637

ntcattgatga cacagacccc cgcgacacca ggcttgatct ccctgcaagg catcggcaaa
 60
 cggtatcagt tggccgggca aaagctgtcc attctcaatg acgtgtgcct gtccatctcc
 120
 cgcggtgaca gctgcggcat cctcggcgcc tccgggtccg gcaagagcac cctgctcaat
 180
 atccttgccc tgctggacct gcccaacagc ggccagtacc actttgccgg ccacgatatt
 240
 ttggcgctca ccccgacga actgtcggcg atccgcaact cagntnnaat gggtgtgttc
 300
 cagagcttca acctgctgcc gcgcctcagc gccctggaca acgtcgccct gccctg
 357

<210> 1638

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1638

Xaa Met Met Thr Gln Thr Pro Ala His Pro Gly Leu Ile Ser Leu Gln
 1 5 10 15
 Gly Ile Gly Lys Arg Tyr Gln Leu Ala Gly Gln Lys Leu Ser Ile Leu
 20 25 30
 Asn Asp Val Cys Leu Ser Ile Ser Arg Gly Asp Ser Cys Gly Ile Leu
 35 40 45
 Gly Ala Ser Gly Ser Gly Lys Ser Thr Leu Leu Asn Ile Leu Gly Leu
 50 55 60
 Leu Asp Leu Pro Asn Ser Gly Gln Tyr His Phe Ala Gly His Asp Ile
 65 70 75 80
 Leu Ala Leu Thr Pro Asp Glu Leu Ser Ala Ile Arg Asn Ser Xaa Xaa
 85 90 95
 Met Val Val Phe Gln Ser Phe Asn Leu Leu Pro Arg Leu Ser Ala Leu
 100 105 110
 Asp Asn Val Ala Leu Pro Leu
 115

<210> 1639
 <211> 396
 <212> DNA
 <213> Homo sapiens

<400> 1639
 acgcgtgtac gtgcgcgtgt gatttcacat gccctcaaag atattcttac tgaaggcgat
 60
 aaagttatcg ttatgggaca taagcgacca gatttagatg ctataggtgc agctatcgga
 120
 gtttcgcgct ttgcatcaat gaataattta gaggcattta tcgttcttaa tgattctgat
 180
 attgatccga cattacgtcg tgttatggat gagattgata agaaaccgga actaaaagaa
 240
 cgctttgtaa catcggatga ggcttgggat atgatgactt ctaagacgac tgctggtggt
 300
 gtagatacac ataaacctga aatggtctta gatgaaaatg tcttaaataa agcaaaccgc
 360
 aaagtagtca ttgatcatca tagacgtggc gaaact
 396

<210> 1640
 <211> 132
 <212> PRT
 <213> Homo sapiens

<400> 1640
 Thr Arg Val Arg Ala Arg Val Ile Ser His Ala Leu Lys Asp Ile Leu
 1 5 10 15
 Thr Glu Gly Asp Lys Val Ile Val Met Gly His Lys Arg Pro Asp Leu
 20 25 30
 Asp Ala Ile Gly Ala Ala Ile Gly Val Ser Arg Phe Ala Ser Met Asn
 35 40 45
 Asn Leu Glu Ala Phe Ile Val Leu Asn Asp Ser Asp Ile Asp Pro Thr
 50 55 60
 Leu Arg Arg Val Met Asp Glu Ile Asp Lys Lys Pro Glu Leu Lys Glu
 65 70 75 80
 Arg Phe Val Thr Ser Asp Glu Ala Trp Asp Met Met Thr Ser Lys Thr
 85 90 95
 Thr Val Val Val Val Asp Thr His Lys Pro Glu Met Val Leu Asp Glu
 100 105 110
 Asn Val Leu Asn Lys Ala Asn Arg Lys Val Val Ile Asp His His Arg
 115 120 125
 Arg Gly Glu Thr
 130

<210> 1641
 <211> 376
 <212> DNA
 <213> Homo sapiens

<400> 1641
 ttatcagcaa acgacagcag acaagagctc ctggggctct ggggaaatgc tgctgcctgc
 60

tggccaaacg aactgatgga tgggctcttg gagtgggaga gactgggcag aagctgtgtg
 120
 ggggtgggtga ctcccaacct aaagaacca ctgagacata tgtggcttcc ctcttcacc
 180
 ttcattgcct ctttccgtct agatgctggc aaggggggac ttggtggaca aagagagcta
 240
 ctattcattc aggagctatg ttacaccagt cactttacat gtgccacttg ctctgggtta
 300
 aactgtgcct cccctcactc atatgttgaa gtcctaacc taactacctc agaatgggac
 360
 gttatttgga aaaaag
 376

<210> 1642

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1642

Met	Asp	Gly	Leu	Leu	Glu	Trp	Glu	Arg	Leu	Gly	Arg	Ser	Cys	Val	Gly
1				5					10					15	
Trp	Val	Thr	Pro	Asn	Leu	Lys	Asn	Pro	Leu	Arg	His	Met	Trp	Leu	Pro
			20					25					30		
Ser	Ser	Thr	Phe	Ile	Ala	Ser	Phe	Arg	Leu	Asp	Ala	Gly	Lys	Gly	Gly
			35					40					45		
Leu	Gly	Gly	Gln	Arg	Glu	Leu	Leu	Phe	Ile	Gln	Glu	Leu	Cys	Tyr	Thr
			50				55					60			
Ser	His	Phe	Thr	Cys	Ala	Thr	Cys	Ser	Gly	Leu	Asn	Cys	Ala	Ser	Pro
65					70					75				80	
His	Ser	Tyr	Val	Glu	Val	Leu	Thr	Leu	Thr	Thr	Ser	Glu	Trp	Asp	Val
				85					90					95	
Ile	Trp	Lys	Lys												
															100

<210> 1643

<211> 494

<212> DNA

<213> Homo sapiens

<400> 1643

aagcttccag aattccatag gaaccagct gcccttcttg tacctcagtg aggtggagcc
 60
 gagtgtctga gagcaggtgc aggagaaggt gtgggctcca cctgggcctc tgaagccagg
 120
 ggccagaatc cccagatcta ggtccaagag ggggctccat gacctcccca tgctgctcct
 180
 ctgcttggat ccaggatata agaaaggagg ggcacacact gtgggggaac tctgggggtcc
 240
 cctgtgtgca tcagcgagtc cggggtctgc cccaccagga tgcaaagggc ctggctgctc
 300
 cagcccatg ctcacagccc tataagtgca cgatggcacc ctatatcatc taagcggggc
 360
 tgtgcctcct gaggttttag ggacaccaga atgagcccc ctcggcggag tctggctctg
 420

gggtgtgtgga gatgccacct gggacgggaa cccaggtgc atggagcccc actgcagaca
 480
 ccatcccccg tgtg
 494

<210> 1644
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 1644
 Met Gly Leu Glu Gln Pro Gly Pro Leu His Pro Gly Gly Ala Asp Pro
 1 5 10 15
 Gly Leu Ala Asp Ala His Arg Gly Pro Gln Ser Ser Pro Thr Val Cys
 20 25 30
 Ala Pro Pro Phe Leu Tyr Pro Gly Ser Lys Gln Arg Ser Ser Met Gly
 35 40 45
 Arg Ser Trp Ser Pro Leu Leu Asp Leu Gly Ile Leu Ala Pro
 50 55 60
 Gly Phe Arg Gly Pro Gly Gly Ala His Thr Phe Ser Cys Thr Cys Ser
 65 70 75 80
 Gln Thr Leu Gly Ser Thr Ser Leu Arg Tyr Gln Lys Gly Ser Trp Val
 85 90 95
 Pro Met Glu Phe Trp Lys Leu
 100

<210> 1645
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 1645
 nnagatctgt cggataatgg ctttggtcc gacatggtga cactggtgct tgccatcggg
 60
 aggagccggt ctctgaaaca cgtggccctt ggaaggaact tcaacgttcg gtgcaaggag
 120
 accctggacg atgtcctgca tcggatagcc cagctaatagc aggatgacga ctgtcctttg
 180
 cagtcactat ccgtggctga gtcgcggttg aagcagggtg ccagcctcct gatccgggct
 240
 ttgggcacca atcctaaact gacagcgctg gatatcagtg gcaatgccat aggggatgct
 300
 ggggccaaga tgctagccaa ggctctacgc
 330

<210> 1646
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 1646
 Xaa Asp Leu Ser Asp Asn Gly Phe Gly Ser Asp Met Val Thr Leu Val
 1 5 10 15
 Leu Ala Ile Gly Arg Ser Arg Ser Leu Lys His Val Ala Leu Gly Arg


```

<400> 1648
Met Asn Gly Gly Asn Glu Ser Ser Gly Ala Asp Arg Ala Gly Gly Pro
 1          5          10          15
Val Ala Thr Ser Val Pro Ile Gly Trp Gln Arg Cys Val Arg Glu Gly
      20          25          30
Ala Val Leu Tyr Ile Ser Pro Ser Gly Thr Glu Leu Ser Ser Leu Glu
      35          40          45
Gln Thr Arg Ser Tyr Leu Leu Ser Asp Gly Thr Cys Lys Cys Gly Leu
      50          55          60
Glu Cys Pro Leu Asn Val Pro Lys Val Phe Asn Phe Asp Pro Leu Ala
65          70          75          80
Pro Val Thr Pro

```


<210> 1649
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 1649
 gcgtcggcag ctgaacgggt gctactggca atcggcgaac ccgaactgct ggatacgtcc
 60
 accaactcac gggtgtcgcg catcttctcc aacaaggatga tccggcgcta tccggccttt
 120
 gaagacttcc acgggatgga agaatgcac gatcagatcg tttcgtattt ccgccacgcc
 180
 gcccaaggcc tggaagagaa gaaacagatc ctttacctgc tcggccccgt cggcggcggt
 240
 aaatcgtccc tggccgaaaa gctgaaacag ctgatcgaga aggtccccct ctacgccatc
 300
 aagggtctcg cggtcttcga gtcgcccctg ggggtgttca acgccactga agacggcgcg
 360
 atcctcgagg aagacttcgg gattccacgg cgttacctga acaccatcat gtcgccctgg
 420
 gcgaccaagc gcctggccga a
 441

<210> 1650
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 1650
 Ala Ser Ala Ala Glu Arg Val Leu Leu Ala Ile Gly Glu Pro Glu Leu
 1 5 10 15
 Leu Asp Thr Ser Thr Asn Ser Arg Leu Ser Arg Ile Phe Ser Asn Lys
 20 25 30
 Val Ile Arg Arg Tyr Pro Ala Phe Glu Asp Phe His Gly Met Glu Glu
 35 40 45
 Cys Ile Asp Gln Ile Val Ser Tyr Phe Arg His Ala Ala Gln Gly Leu
 50 55 60
 Glu Glu Lys Lys Gln Ile Leu Tyr Leu Leu Gly Pro Val Gly Gly Gly
 65 70 75 80
 Lys Ser Ser Leu Ala Glu Lys Leu Lys Gln Leu Ile Glu Lys Val Pro
 85 90 95
 Phe Tyr Ala Ile Lys Gly Ser Pro Val Phe Glu Ser Pro Leu Gly Leu
 100 105 110
 Phe Asn Ala Thr Glu Asp Gly Ala Ile Leu Glu Glu Asp Phe Gly Ile
 115 120 125
 Pro Arg Arg Tyr Leu Asn Thr Ile Met Ser Pro Trp Ala Thr Lys Arg
 130 135 140
 Leu Ala Glu
 145

<210> 1651
 <211> 408

<212> DNA

<213> Homo sapiens

<400> 1651

```

nccgcggatc cctccggcat cctgggtatc gtcctcctga aggaatccgg agcccgactg
60
cgccgcgagc tttccgaacg cctcgaggat tacgccgcac aaacttccat ggtgcgttcc
120
gtacactccc tcgcattcgc gttgctgcgc acagcggccg aggaggagct gcgccttatt
180
accggtgcgg acnaagacgc cgttatccgc gagctgctca cgggccaagc agaagacgga
240
catggctcgt ggcccgcgga gatgcgcccc gcgtggaatn natgtgggct ttcgcggcag
300
ctgcgcgatt tccttttgcg ttccattgaa cgcggcctgg gaccgggtga cctagagagc
360
ctcggtgccg agcacggccg ccccatgtgg tctgcggcgg gtgaattc
408

```

<210> 1652

<211> 136

<212> PRT

<213> Homo sapiens

<400> 1652

```

Xaa Ala Asp Pro Ser Gly Ile Leu Val Ile Ala Pro Ser Lys Glu Ser
1      5      10      15
Gly Ala Arg Leu Arg Arg Glu Leu Ser Glu Arg Leu Glu Asp Tyr Ala
20     25     30
Ala Gln Thr Ser Met Val Arg Ser Val His Ser Leu Ala Phe Ala Leu
35     40     45
Leu Arg Thr Ala Ala Glu Glu Glu Leu Arg Leu Ile Thr Gly Ala Asp
50     55     60
Xaa Asp Ala Val Ile Arg Glu Leu Leu Thr Gly Gln Ala Glu Asp Gly
65     70     75     80
His Gly Ser Trp Pro Ala Glu Met Arg Pro Ala Trp Asn Xaa Cys Gly
85     90     95
Leu Ser Arg Gln Leu Arg Asp Phe Leu Leu Arg Ser Ile Glu Arg Gly
100    105    110
Leu Gly Pro Gly Asp Leu Glu Ser Leu Gly Ala Glu His Gly Arg Pro
115    120    125
Met Trp Ser Ala Ala Gly Glu Phe
130    135

```

<210> 1653

<211> 398

<212> DNA

<213> Homo sapiens

<400> 1653

```

ccagcctctc tccgaccgcg tccttcttcc ggccatacgg cacccaatgt cgcgtcacca
60
tcacccgcgc acatggccat cgctccaccg gacgagttga gtgacaagat ccggtgcatt
120

```


ctgcgcaccc ttgaacctgg tgacagtgtg aaggagattc tcaacacgtc gcgtgtcgtc
 180
 ggcatgtgacg tccagagcag cctgcttatt gctggtgctc agcatctgta cttgttggac
 240
 gattacttcc agcgtccgaa cgggtgaaatc gtcaatgtct gggaagctcc gccacacgag
 300
 cgcgatgcct tgatcgtggc ggccggtgtc gcacaggtgg cacaaagcag cacacccgtg
 360
 cagatatggc gctgggaaca gctccgactt tgtctaga
 398

<210> 1654
 <211> 132
 <212> PRT
 <213> Homo sapiens

<400> 1654
 Pro Ala Ser Leu Arg Pro Arg Pro Ser Ser Gly His Thr Ala Pro Asn
 1 5 10 15
 Val Ala Ser Pro Ser Pro Ala His Met Ala Ile Ala Pro Pro Asp Glu
 20 25 30
 Leu Ser Asp Lys Ile Arg Cys Ile Leu Arg Thr Leu Glu Pro Gly Asp
 35 40 45
 Ser Val Lys Glu Ile Leu Asn Thr Ser Arg Val Val Gly Ile Asp Val
 50 55 60
 Gln Ser Ser Leu Leu Ile Ala Gly Ala Gln His Leu Tyr Leu Leu Asp
 65 70 75 80
 Asp Tyr Phe Gln Arg Pro Asn Gly Glu Ile Val Asn Val Trp Glu Ala
 85 90 95
 Pro Pro His Glu Arg Asp Ala Leu Ile Val Ala Ala Gly Val Ala Gln
 100 105 110
 Val Ala Gln Ser Ser Thr Pro Val Gln Ile Trp Arg Trp Glu Gln Leu
 115 120 125
 Arg Leu Cys Leu
 130

<210> 1655
 <211> 1115
 <212> DNA
 <213> Homo sapiens

<400> 1655
 nccttgacct gacctgtcct cgccatggcc gaggccgcct ccggcgccgg gggcacgtcc
 60
 ctggagggcg agcgtggcaa gagggccccc cggagggcg agcctgcagc cccggcgtcc
 120
 ggagttctgg ataagctttt cggaaagcgg ctcttcgagg ctggtcgcta cctggtgtcc
 180
 cacaaggcgt ggatgaagac ggtgcctaca gagaactgcg acgtgctgat gaccttccca
 240
 gacacgaccg atgaccacac gctgctatgg ctgctgaacc acatccgcgt gggcattccc
 300
 gagctcatcg tgcaagtccg ccaccaccgc cacacgcgtg cctacgcctt ctttgtcacc
 360

gccacgtatg agagcctact ccgagggggc gacgagctgg gtctgcgcaa agcagtgaag
 420
 gccgagtttg gcggggggcac ccgcggcttc tcctgcgagg aggactttat ctatgagaat
 480
 gtggagagcg agctacgctt cttcacctcc caggaacgcc agagcatcat ccgcttctgg
 540
 ctgcagaatt tgcgtgccaa gcagggagaa gcactccaca acgtgcgctt cctggaggac
 600
 cagccaatca tcccggagct ggcagcacgt gggatcatcc agcagggtgtt ccctgtccac
 660
 gagcagcgta ttctgaaccg cctcatgaag tcatgggtgc aggccgtgtg tgaaaaccag
 720
 cctctagatg acatctgtga ttactttggt gtgaaaattg ccatgtactt cgctggctg
 780
 ggcttctaca cgctggctat ggtataccca gctgtcttcg ggtctgtcct gtacacattc
 840
 acagaggctg atcagacaag ccgggatgtt tcctgcgtgg tctttgccct cttcaacgtg
 900
 atctggtcga cgctgttcct ataggaatgg aagcgtatag gggctgagct gggatataat
 960
 tgggggacgc tggactcatc ctgggaagcc gtggaggagc cacgccccca gttcagggtg
 1020
 gtgcgacgta tcatcccat cactcggggc gaggagttct actaccgcc ctggaagcgg
 1080
 ctgctcttcc agctgcttgt tagcctccgc ctgtg
 1115

<210> 1656

<211> 299

<212> PRT

<213> Homo sapiens

<400> 1656

Met	Ala	Glu	Ala	Ala	Ser	Gly	Ala	Gly	Gly	Thr	Ser	Leu	Glu	Gly	Glu
1				5					10					15	
Arg	Gly	Lys	Arg	Pro	Pro	Pro	Glu	Gly	Glu	Pro	Ala	Ala	Pro	Ala	Ser
			20					25					30		
Gly	Val	Leu	Asp	Lys	Leu	Phe	Gly	Lys	Arg	Leu	Leu	Gln	Ala	Gly	Arg
		35					40					45			
Tyr	Leu	Val	Ser	His	Lys	Ala	Trp	Met	Lys	Thr	Val	Pro	Thr	Glu	Asn
		50				55					60				
Cys	Asp	Val	Leu	Met	Thr	Phe	Pro	Asp	Thr	Thr	Asp	Asp	His	Thr	Leu
65					70					75					80
Leu	Trp	Leu	Leu	Asn	His	Ile	Arg	Val	Gly	Ile	Pro	Glu	Leu	Ile	Val
			85						90				95		
Gln	Val	Arg	His	His	Arg	His	Thr	Arg	Ala	Tyr	Ala	Phe	Phe	Val	Thr
			100					105					110		
Ala	Thr	Tyr	Glu	Ser	Leu	Leu	Arg	Gly	Ala	Asp	Glu	Leu	Gly	Leu	Arg
		115					120				125				
Lys	Ala	Val	Lys	Ala	Glu	Phe	Gly	Gly	Gly	Thr	Arg	Gly	Phe	Ser	Cys
	130					135					140				
Glu	Glu	Asp	Phe	Ile	Tyr	Glu	Asn	Val	Glu	Ser	Glu	Leu	Arg	Phe	Phe
145					150					155					160
Thr	Ser	Gln	Glu	Arg	Gln	Ser	Ile	Ile	Arg	Phe	Trp	Leu	Gln	Asn	Leu

<400> 1658																
Met	Leu	Ala	Gly	Ala	Asp	Val	His	Ala	Arg	Val	Pro	Pro	Pro	Trp	Asn	
1				5					10					15		
Val	Ala	Ala	Gly	Val	Gly	His	Leu	His	Gly	Pro	Arg	Gly	Cys	Arg	Pro	
			20				25						30			
Ser	His	Ala	Glu	Ala	Ala	Gly	Ala	Pro	Leu	Pro	Gly	Ala	Val	Leu	Gly	
		35					40					45				
Glu	Val	Pro	Ala	Arg	Ala	Ala	Ala	Arg	Pro	Leu	Lys	Arg	Arg	Gly	Lys	
	50					55					60					
Pro	Ala	Gly	Ser	Lys	Asn	Cys	Leu	Gln	Arg	Leu	Thr	Asp	Cys	Val	Leu	
65					70					75					80	
Ser	Val	Leu	Thr	Pro	Arg	Leu	Arg	Ala	Gly	Pro	Gly	Gly	Arg	Gly	Arg	

85 90 95
 Pro Gly Pro His Gly Pro Asp Asp Leu Glu Pro Leu
 100 105

<210> 1659
 <211> 382
 <212> DNA
 <213> Homo sapiens

<400> 1659
 nnaagcttat ttgttattac taatattttc cgtgaccaga tgggccgcta tggtagagatt
 60
 tacacaactt acaagatgat ttggatgct attcgtaagg tgcctactgc cactgttctc
 120
 cttaatggag acagtccact ttctacaag ccagctattc caaatcctgt acagtatttt
 180
 ggttttgact tggagaaagg cccagcccaa ctggctcact ataataccga aggaattctc
 240
 tgtcccgact gccaaaggcat cctcaaatat gagcataata cctatgcaaa cttgggcgccc
 300
 tatatctgtg aagactgtgg atgtaaacgt cctgatctcg actatcgctt gacagaactg
 360
 gttgagttaa ccaacaatcg cn
 382

<210> 1660
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 1660
 Xaa Ser Leu Phe Val Ile Thr Asn Ile Phe Arg Asp Gln Met Gly Arg
 1 5 10 15
 Tyr Gly Glu Ile Tyr Thr Thr Tyr Lys Met Ile Leu Asp Ala Ile Arg
 20 25 30
 Lys Val Pro Thr Ala Thr Val Leu Leu Asn Gly Asp Ser Pro Leu Phe
 35 40 45
 Tyr Lys Pro Ala Ile Pro Asn Pro Val Gln Tyr Phe Gly Phe Asp Leu
 50 55 60
 Glu Lys Gly Pro Ala Gln Leu Ala His Tyr Asn Thr Glu Gly Ile Leu
 65 70 75 80
 Cys Pro Asp Cys Gln Gly Ile Leu Lys Tyr Glu His Asn Thr Tyr Ala
 85 90 95
 Asn Leu Gly Ala Tyr Ile Cys Glu Asp Cys Gly Cys Lys Arg Pro Asp
 100 105 110
 Leu Asp Tyr Arg Leu Thr Glu Leu Val Glu Leu Thr Asn Asn Arg
 115 120 125

<210> 1661
 <211> 524
 <212> DNA
 <213> Homo sapiens

<400> 1661

acgcgtcgat gatcatggag aagacgcggg ccggctcctt gcctgtgacc ttcttgtaca
 60
 gctgcgggta gtagagctcc aggctctcga ggaaggccac gtagcccttg tggccgggtcc
 120
 gctgcaggat gtccaggagc acaccactt tccgtttgcg gatgaccagg ttgggggtcgc
 180
 tgagcacctg ctctcatca tcagggttca ggaccttgca ctgccgcagg taaggtgtga
 240
 tgcgtgaggg gtcgatgacc gaggtgagcg tcacccggaa gccctccagg acgttccagc
 300
 actcgtcatc gttctcgtag tccgacatgg cctcagcagg caggctgggg agtgtggggc
 360
 agtgctgaga gcgatgccgg ctctgcccc caccggggcc cagctccac tccttctcag
 420
 acgctggggc agggctctcg tcagggtcgc gagggggatc agcccaggcg catccaggag
 480
 aggtgcccag ctccgtgtcc catcccacgc ttgatcgctg catg
 524

<210> 1662

<211> 174

<212> PRT

<213> Homo sapiens

<400> 1662

Met	Gln	Arg	Ser	Ser	Val	Gly	Trp	Asp	Thr	Glu	Leu	Gly	Thr	Ser	Pro	1	5	10	15
Gly	Cys	Ala	Trp	Ala	Asp	Pro	Pro	Arg	Cys	Pro	Asp	Glu	Ser	Pro	Gly	20	25	30	
Pro	Ala	Ser	Glu	Lys	Glu	Trp	Glu	Leu	Gly	Pro	Gly	Gly	Gly	Arg	Ser	35	40	45	
Arg	His	Arg	Ser	Gln	His	Cys	Pro	Thr	Leu	Pro	Ser	Leu	Pro	Ala	Glu	50	55	60	
Ala	Met	Ser	Asp	Tyr	Glu	Asn	Asp	Asp	Glu	Cys	Trp	Asn	Val	Leu	Glu	65	70	75	80
Gly	Phe	Arg	Val	Thr	Leu	Thr	Ser	Val	Ile	Asp	Pro	Ser	Arg	Ile	Thr	85	90	95	
Pro	Tyr	Leu	Arg	Gln	Cys	Lys	Val	Leu	Asn	Pro	Asp	Asp	Glu	Glu	Gln	100	105	110	
Val	Leu	Ser	Asp	Pro	Asn	Leu	Val	Ile	Arg	Lys	Arg	Lys	Val	Gly	Val	115	120	125	
Leu	Leu	Asp	Ile	Leu	Gln	Arg	Thr	Gly	His	Lys	Gly	Tyr	Val	Ala	Phe	130	135	140	
Leu	Glu	Ser	Leu	Glu	Leu	Tyr	Tyr	Pro	Gln	Leu	Tyr	Lys	Lys	Val	Thr	145	150	155	160
Gly	Lys	Glu	Pro	Ala	Arg	Val	Phe	Ser	Met	Ile	Ile	Asp	Ala			165	170		

<210> 1663

<211> 321

<212> DNA

<213> Homo sapiens

<400> 1663

nnagtacttg tcatgattac gcctagtttg ggtatctatt tctctcagcg ttctcagatc
 60
 tcccgaaccc aagacgacga ggctcggaca cgcgcttcta tctcgaccct tcaagacgag
 120
 gtcaagaggt ggcacgatcc cgactacgtc cgtgctcagg cgcgctccca gctcggctgg
 180
 gtgatgccgg gcgaaactgg gtatcaggtc attggagaaa acggttaagg cattggatcg
 240
 acgacttctt tggacgaaaa agatccggcg agtgaagcca gcgctgacgc tcggtggtgg
 300
 caagaggctt gcggatcagt c
 321

<210> 1664

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1664

Xaa	Val	Leu	Val	Met	Ile	Thr	Pro	Ser	Leu	Gly	Ile	Tyr	Phe	Ser	Gln
1				5					10					15	
Arg	Ser	Gln	Ile	Ser	Arg	Thr	Gln	Asp	Asp	Glu	Ala	Arg	Thr	Arg	Ala
			20					25					30		
Ser	Ile	Ser	Thr	Leu	Gln	Asp	Glu	Val	Lys	Arg	Trp	His	Asp	Pro	Asp
			35				40					45			
Tyr	Val	Arg	Ala	Gln	Ala	Arg	Ser	Gln	Leu	Gly	Trp	Val	Met	Pro	Gly
			50			55					60				
Glu	Thr	Gly	Tyr	Gln	Val	Ile	Gly	Glu	Asn	Gly	Lys	Val	Ile	Gly	Ser
65					70					75				80	
Thr	Thr	Ser	Leu	Asp	Glu	Lys	Asp	Pro	Ala	Ser	Glu	Ala	Ser	Ala	Asp
			85						90					95	
Ala	Arg	Trp	Trp	Gln	Glu	Ala	Cys	Gly	Ser	Val					
			100					105							

<210> 1665

<211> 431

<212> DNA

<213> Homo sapiens

<400> 1665

gcttccgaac tcatcaagaa gctcaagagg tataaaatgg ttttgcgctc taccggcggc
 60
 ggcccgaacta tctccggtgg tgaagtactc atgcaacgag cttttgcgtg gaacttgctc
 120
 atgagtgcta agtcgatggg cattcatacc tgtatcgata cctccggttt tttgggggct
 180
 gcggcaacag atgacttttt agagtctggt gatttggtgt tgctcgacgt caaatcggga
 240
 gatgaagaaa tctaccgtgc cctcaccggc agagcggtgc aacctaccat cgattttggt
 300
 gatcgtctca ccgcgctcgg taaagaaatc tggattcggg tcggttggtt ccccgatac
 360
 accgactcgg tagagaacgt ggaaaagggt gccgatatcg tccgcagatg gcgcaccgct
 420

gtttcacgcg t
431

<210> 1666
<211> 143
<212> PRT
<213> Homo sapiens

<400> 1666
Ala Ser Glu Leu Ile Lys Lys Leu Lys Arg Tyr Lys Met Val Leu Arg
1 5 10 15
Ser Thr Gly Gly Gly Pro Thr Ile Ser Gly Gly Glu Val Leu Met Gln
20 25 30
Arg Ala Phe Ala Trp Asn Leu Leu Met Ser Ala Lys Ser Met Gly Ile
35 40 45
His Thr Cys Ile Asp Thr Ser Gly Phe Leu Gly Ala Ala Ala Thr Asp
50 55 60
Asp Phe Leu Glu Ser Val Asp Leu Val Leu Leu Asp Val Lys Ser Gly
65 70 75 80
Asp Glu Glu Ile Tyr Arg Ala Leu Thr Gly Arg Ala Leu Gln Pro Thr
85 90 95
Ile Asp Phe Gly Asp Arg Leu Thr Ala Leu Gly Lys Glu Ile Trp Ile
100 105 110
Arg Phe Val Val Val Pro Gly Tyr Thr Asp Ser Val Glu Asn Val Glu
115 120 125
Lys Val Ala Asp Ile Val Arg Arg Trp Arg Thr Ala Val Ser Arg
130 135 140

<210> 1667
<211> 370
<212> DNA
<213> Homo sapiens

<400> 1667
tccgctgaga ccagcggttg tgacttccca ggtgagactg tccgcacccat ggccaagatc
60
gttgagtcta ctgaggcccg tggcttgac aagatcgcca agatcgactg ggatccgcac
120
accaccagtg gcatcatgtc gaaggcagct gctgagatcg ctgagcgcgc cgaggccaag
180
ttcatcgtgg cctttaccaa gtccggtgac accgcccgtc gtatcgctcg tctgcgtccg
240
agcaccgccg tcatcgtttt cacctctgat gagaccacga ccaagaccct cgcctgggtc
300
tggggcgctc acgccgtcgt taccocggtg tttaagaatg cggaggagct gtaccgctgg
360
gttaacgcgt
370

<210> 1668
<211> 123
<212> PRT
<213> Homo sapiens

<400> 1668

```

Ser Ala Glu Thr Ser Val Gly Asp Phe Pro Gly Glu Thr Val Arg Thr
 1           5           10           15
Met Ala Lys Ile Val Glu Ser Thr Glu Ala Arg Gly Leu Asp Lys Ile
 20           25           30
Ala Lys Ile Asp Trp Asp Pro His Thr Thr Ser Gly Ile Met Ser Lys
 35           40           45
Ala Ala Ala Glu Ile Ala Glu Arg Ala Glu Ala Lys Phe Ile Val Ala
 50           55           60
Phe Thr Lys Ser Gly Asp Thr Ala Arg Arg Ile Ala Arg Leu Arg Pro
65           70           75           80
Ser Thr Pro Leu Ile Val Phe Thr Ser Asp Glu Thr Thr Thr Lys Thr
 85           90           95
Leu Ala Trp Val Trp Gly Ala His Ala Val Val Thr Pro Val Phe Lys
100          105          110
Asn Ala Glu Glu Leu Tyr Arg Trp Val Asn Ala
115          120

```

<210> 1669

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 1669

```

ggatcctgca gtggtgatct gtcacgtca cgtcacagaa ctgaacatgg aatgaacaa
60
cgaaaactcc accccttct caaacgagtt attcctagct ccgccccag tccttgccctc
120
tcccagcctt ggtggtaatt agcttgaaag tgggaacgag agtgcggtcc gcaaagaaag
180
gacttctggt tagacactga aatacaaaaca gactgccaac gagctctggg caaagctgcc
240
ccgtcttctt ttttcgaaag accctcaaaa actgcctttc cttctgctac caaaacttgg
300
gccctagaaa gtggctgcgg agtggagcag atggacatca ctgagaatgg tagaggaggg
360
gctgtgtttt ctgaggggga gtcattggcag cttgtgctgg gggccaggaa gggaaaaaac
420
caatctggca ttcagggtgt ggaaggcaaa gtgaaacaag aagtcatttg ggaaaatatt
480
atattataaa cacatagaat aatatgtaca cgctcatata catcccaaag agaagcctca
540
aggagtccg tttcttctca aaagaaactt cactatgata aagcattcct atagtgggaa
600
ttaactacaa tgaaataatt taacaatttc atttatgcta tatctgtgtc cactacagag
660
tctacggtga aggctgtgtg gagcgagtgt gtctagtga ctcgaacacc aacgcgttct
720
tcaaaaatag gcaatgacct gtttttttct attcacattt acaatagcta cacagtgatg
780
aaacgcagac tgaaaaatca aatggcagga cgatggaact gtcgtcaagg ttctcagact
840
tgtggcttct gcacctgtta tacttttggg tacgagtggag ctccacttag cttcgttaag
900

```


attagaaatt tccatgaaac acttaccac atataaattc tgtgtaaagc tttatttttt
 960
 tccccaccta ctttaatttt ttttaaaaag tgaaataaga ggaaaaactc ttataaaata
 1020
 taagggtttta catacgagag agcgaggaac accccggagg ctgccggtgc gtgtggcttc
 1080
 atgtttctgt gctacatgag tctagtgtcc tcattctcca ttgtgacaac ctttctcccc
 1140
 ccatcacact gtcaatgagc tctaggcaaa gctgccccgt ttgcttttaa cctaagggat
 1200
 gctgtgggtt gggtgactac atttgactac caccactgaa ggcgggcgac gtctgaagcg
 1260
 gctggatacc gcaacgatgg aaaatcaggc gaggtactag cgtggagggc cgggctgcca
 1320
 ggtcaaggtc gtctgggttc tcaggagcca gtctgtgcca cagaaccatc ggcagctgcc
 1380
 ttcgtaaggc acctcggctt ggcattcgga aaaccacccc atcttgccag agtcccttgg
 1440
 tccttgggta gcaaaagccg tatgcgatct aaatcaagct ttcaatcatg a
 1491

<210> 1670

<211> 132

<212> PRT

<213> Homo sapiens

<400> 1670

Met	Pro	Asp	Trp	Phe	Phe	Pro	Phe	Leu	Ala	Pro	Ser	Thr	Ser	Cys	His
1				5					10					15	
Asp	Ser	Pro	Ser	Glu	Asn	Thr	Ala	Pro	Pro	Leu	Pro	Phe	Ser	Val	Met
		20						25				30			
Ser	Ile	Cys	Ser	Thr	Pro	Gln	Pro	Leu	Ser	Arg	Ala	Gln	Val	Leu	Val
	35					40					45				
Ala	Glu	Gly	Lys	Ala	Val	Phe	Glu	Gly	Leu	Ser	Lys	Lys	Glu	Asp	Gly
	50					55				60					
Ala	Ala	Leu	Pro	Arg	Ala	Arg	Trp	Gln	Ser	Val	Cys	Ile	Ser	Val	Ser
65				70				75						80	
Asn	Gln	Lys	Ser	Phe	Leu	Cys	Gly	Pro	His	Ser	Arg	Ser	His	Phe	Gln
			85					90					95		
Ala	Asn	Tyr	His	Gln	Gly	Trp	Glu	Arg	Gln	Gly	Leu	Gly	Ala	Glu	Leu
		100					105					110			
Gly	Ile	Thr	Arg	Leu	Arg	Arg	Gly	Trp	Ser	Phe	Arg	Cys	Ser	Phe	Pro
		115					120					125			
Cys	Ser	Val	Leu												
			130												

<210> 1671

<211> 432

<212> DNA

<213> Homo sapiens

<400> 1671

gcgcgcggg gcgggaggac gccagtcgtc ttcccgcccc tcaccacgac acgaccatta
 60

tcgcgacgaa ggaagcccat ggctgaaacc acatcgccgg cacagcggaa acccacggcg
 120
 gcatcccga tgaagccggt gtcgcggggc ggggacacga ttttcgctgg cgctcgtcg
 180
 gttattgcca tagccctggc cgtcatcgtc atcctgatgt tcgtcttcct catgaagacg
 240
 gcagccccga cgttggtggc taacaccgat aactttttca cgtccccggc ttggacaacg
 300
 gatcagaacc cgccggcctt tggatatccag gccctgctat ggacgacagt catctcatcc
 360
 ctgcttgccc tgcctcatgc agtgccgctc tcggtgggca tcgctctggt tatcaccag
 420
 ctcgcaccta gg
 432

<210> 1672

<211> 144

<212> PRT

<213> Homo sapiens

<400> 1672

Ala	Arg	Arg	Gly	Gly	Arg	Thr	Pro	Val	Val	Phe	Pro	Pro	Leu	Thr	Thr
1			5					10					15		
Thr	Arg	Pro	Leu	Ser	Arg	Arg	Arg	Lys	Pro	Met	Ala	Glu	Thr	Thr	Ser
		20					25					30			
Pro	Ala	Gln	Arg	Lys	Pro	Thr	Ala	Ala	Ser	Arg	Met	Lys	Pro	Val	Ser
	35					40				45					
Arg	Val	Gly	Asp	Thr	Ile	Phe	Ala	Gly	Ala	Ser	Ser	Val	Ile	Ala	Ile
50					55					60					
Ala	Leu	Ala	Val	Ile	Val	Ile	Leu	Met	Phe	Val	Phe	Leu	Met	Lys	Thr
65				70					75					80	
Ala	Ala	Pro	Thr	Leu	Leu	Ala	Asn	Thr	Asp	Asn	Phe	Phe	Thr	Ser	Arg
		85					90						95		
Ala	Trp	Thr	Thr	Asp	Gln	Asn	Pro	Pro	Ala	Phe	Gly	Ile	Gln	Ala	Leu
	100						105					110			
Leu	Trp	Thr	Thr	Val	Ile	Ser	Ser	Leu	Leu	Ala	Leu	Leu	Ile	Ala	Val
	115					120					125				
Pro	Leu	Ser	Val	Gly	Ile	Ala	Leu	Phe	Ile	Thr	Gln	Leu	Ala	Pro	Arg
130						135					140				

<210> 1673

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1673

tcgcgagcac actccagcct ctggggcgctc tgccagggcc tctgtgtttt gatatactct
 60
 gacctggcag tgaagctgct gatgaatgca cgacaaagac cagtttgctc cgtaacccca
 120
 ggctcccagc gtctttttcca tgagccaaag gcctggctct ggaggggggt gccctgcagc
 180
 tctgctggcc ttcttccagg ggagttcatt gctgggggtg gccctgcagg gacctccact
 240

gtgctgggga ggggaagaag aaggatgcaa cagggggagg ggagaatttg agaaaatagg
 300
 atgcaaattc tccacttggt aataaagaaa tagagagcca ttgctaagaa ctatgtttac
 360
 gcagggttag tgctgggacc cagaaccagt caactggttt t
 401

<210> 1674
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 1674
 Met Ala Leu Tyr Phe Phe Ile His Lys Trp Arg Ile Cys Ile Leu Phe
 1 5 10 15
 Ser Gln Ile Leu Pro Ser Pro Cys Cys Ile Leu Leu Leu Pro Leu Pro
 20 25 30
 Ser Thr Val Glu Val Pro Ala Gly Pro Pro Pro Ala Met Asn Ser Pro
 35 40 45
 Gly Arg Arg Pro Ala Glu Leu Gln Gly Thr Pro Leu Gln Asp Gln Ala
 50 55 60
 Phe Gly Ser Trp Lys Arg Arg Trp Glu Pro Gly Val Thr Glu Gln Thr
 65 70 75 80
 Gly Leu Cys Arg Ala Phe Ile Ser Ser Phe Thr Ala Arg Ser Glu Tyr
 85 90 95
 Ile Lys Thr Gln Arg Pro Trp Gln Thr Pro Gln Arg Leu Glu Cys Ala
 100 105 110
 Arg

<210> 1675
 <211> 500
 <212> DNA
 <213> Homo sapiens

<400> 1675
 gccggcgac ccacctggga cgtggtgaaa tcggcaaaac tcacctcttt agctacctgc
 60
 gcgccaaccg cacgggcagc ctcccacacg ccctctagag cgctgctgga cagaatggct
 120
 tgattgtttg gcatgctctc aggatacccg ttagccagg aaacaccggt aggcttgcta
 180
 ctatgcgagc agccgacgca cgggtagagg gaattccac cacagtcctt cgcactccac
 240
 ccgcacacgc cctgggaacc gtcaccgcg gtaccaccgg gtcaatcggc tccgcaaattg
 300
 cgaccgctgg atgtgccacc accccgcnc a tccgcagtgc gctccgtaac gccgtctgca
 360
 acaccgtccc ctccgtatct gccgacacct gtgccaacac ttgtaccgat gcatgcaccg
 420
 atgcagcaac aggcgctccg ctcgctatcg atctgggata cggcgccgcc ccctggacca
 480
 ctgttgagat ggctacgcgt
 500

<210> 1676
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 1676
 Arg Glu Phe Pro Pro Gln Ser Leu Ala Leu His Pro His Thr Pro Trp
 1 5 10 15
 Glu Pro Ser Pro Ala Val Pro Pro Gly Gln Ser Ala Pro Gln Met Arg
 20 25 30
 Pro Leu Asp Val Pro Pro Pro Arg Xaa Ser Ala Val Arg Ser Val Thr
 35 40 45
 Pro Ser Ala Thr Pro Ser Pro Pro Tyr Leu Pro Thr Pro Val Pro Thr
 50 55 60
 Leu Val Pro Met His Ala Pro Met Gln Gln Gln Ala Leu Arg Ser Leu
 65 70 75 80
 Ser Ile Trp Asp Thr Ala Pro Pro Pro Gly Pro Leu Leu Arg Trp Leu
 85 90 95
 Arg

<210> 1677
 <211> 631
 <212> DNA
 <213> Homo sapiens

<400> 1677
 nntcatgatt tcctcaatga tgccaagggtg atggaggccg gctatacctg ggtgcagggtg
 60
 gatttgcgcg gtacgggtgc ttctactggg tgtttgngac tggaatgggc cnnccggggag
 120
 cagcaggatg ttgtgaccgc cgtggaatgg gcggcggtac agccgtgggc gaatggtcgg
 180
 gtggggcttt tcggtaaate ctacgatggg gggacggggg cttattgctg caggtaatca
 240
 gccgcggggg ttggctgctg tgggtggcgca ggagccagct atggagccct acacttacct
 300
 gtataacaat gaggtccttt actacaacgc tattggtacg agcctttctt atgatgagat
 360
 tgctgectcc cccggccgtg tccttcacga cactcccgaa tatatgaaga acagtgtcta
 420
 cgagggtggc caccgcatt gcctgtccga caatttgct aattctttag accccatccg
 480
 tagccacaaa taatggggcg gatcgggtctt tccctcacca agacgcataa tttcccccg
 540
 gcccttgctt atttccgctg gccttattga ggacaatacg gagcctgatg gtttggtgga
 600
 attgttgaag gaccgtaagg ctccgacgcg t
 631

<210> 1678
 <211> 78
 <212> PRT

<213> Homo sapiens

<400> 1678

```

Xaa His Asp Phe Leu Asn Asp Ala Lys Val Met Glu Ala Gly Tyr Thr
 1             5             10             15
Trp Val Gln Val Asp Leu Arg Gly Thr Gly Ala Ser Thr Gly Cys Leu
      20             25             30
Xaa Leu Glu Trp Ser Xaa Gly Glu Gln Gln Asp Val Val Thr Ala Val
      35             40             45
Glu Trp Ala Ala Val Gln Pro Trp Ser Asn Gly Arg Val Gly Leu Phe
      50             55             60
Gly Lys Ser Tyr Asp Gly Gly Thr Gly Ser Tyr Cys Cys Arg
65             70             75

```

<210> 1679

<211> 531

<212> DNA

<213> Homo sapiens

<400> 1679

```

nctacttaga gcaaaggtag gaaaagaagg cagctaggcg tggctctcat tccttcccac
60
agaatggatt ataagtcgag cctgatccag gatgggaatc ccatggagaa cttggagaag
120
cagctgatct gtcctatctg cctggagatg tttaccaagc cagtgggtcat cttgccgtgc
180
cagcacaacc tgtgccggaa gtgtgccaat gacatcttcc aggctgcaaa tccctactgg
240
accagccggg gcagctcagt gtccatgtct ggaggccggt tccgctgccc tacctgccgc
300
cacgaggtga tcatggatcg tcacggagtg tacggcctgc agaggaacct gctggtggag
360
aacatcatcg acatctacaa acaggagtgc tccagtcggc cgctgcagaa gggcagtcac
420
cccatgtaca aggagcacga agatgagaaa atcaacatct actgtctcac gtgtgaggtg
480
cccacctgct ccatgtgcaa ggtgtttggg atccacaagg cctgcgaggt g
531

```

<210> 1680

<211> 143

<212> PRT

<213> Homo sapiens

<400> 1680

```

Met Glu Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met
 1             5             10             15
Phe Thr Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg
      20             25             30
Lys Cys Ala Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Ser
      35             40             45
Arg Gly Ser Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Thr
      50             55             60
Cys Arg His Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln

```



```

65          70          75          80
Arg Asn Leu Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys
          85          90          95
Ser Ser Arg Pro Leu Gln Lys Gly Ser His Pro Met Tyr Lys Glu His
          100          105          110
Glu Asp Glu Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr
          115          120          125
Cys Ser Met Cys Lys Val Phe Gly Ile His Lys Ala Cys Glu Val
          130          135          140

```

<210> 1681

<211> 396

<212> DNA

<213> Homo sapiens

<400> 1681

```

gagttccaca actgcaggac agatgacaag acgttccaat gtgagatgtg tttcagattc
60
ttttccacca acagcaacct ctccaagcac aagaagaagc acggcgacaa gaagtttgcc
120
tgtgaggtct gcagcaagat gttctaccgc aaggacgtca tgctggacca ccagcgccgg
180
cacnctggaa ggagtgcggc gagtgaagcg nnagaggacc tggaggccgg tggggagaac
240
ctggtccggtt acaagaagga gccttccggg tgcccgggtg gtggcaaggt gttctcctgc
300
cggagcaata tgaacaagca cctgctcacc cacggcgaca agaagtacac ctgcgagatc
360
tgcgggcgca agttcttccg cgtggatgtg ctcagg
396

```

<210> 1682

<211> 132

<212> PRT

<213> Homo sapiens

<400> 1682

```

Glu Phe His Asn Cys Arg Thr Asp Asp Lys Thr Phe Gln Cys Glu Met
1          5          10          15
Cys Phe Arg Phe Phe Ser Thr Asn Ser Asn Leu Ser Lys His Lys Lys
          20          25          30
Lys His Gly Asp Lys Lys Phe Ala Cys Glu Val Cys Ser Lys Met Phe
          35          40          45
Tyr Arg Lys Asp Val Met Leu Asp His Gln Arg Arg His Xaa Gly Arg
          50          55          60
Ser Ala Ala Ser Glu Ala Xaa Glu Asp Leu Glu Ala Gly Gly Glu Asn
65          70          75          80
Leu Val Arg Tyr Lys Lys Glu Pro Ser Gly Cys Pro Val Cys Gly Lys
          85          90          95
Val Phe Ser Cys Arg Ser Asn Met Asn Lys His Leu Leu Thr His Gly
          100          105          110
Asp Lys Lys Tyr Thr Cys Glu Ile Cys Gly Arg Lys Phe Phe Arg Val
          115          120          125
Asp Val Leu Arg

```


130

<210> 1683
 <211> 676
 <212> DNA
 <213> Homo sapiens

<400> 1683
 nncggccgga caggtcccgga gcagccccgc ccaacatgga cccagacccc caggcgggcg
 60
 tgcagggtggg catgcgggtg gtgcgcggcg tggaccggaa gtggggccag caggacggcg
 120
 gcgagggcg cggtggcacg gtggtggagc ttggccgcca cggcagcccc tcgacacccg
 180
 accgcacagt ggtcgtgcag tgggaccagg gcacgcgcac caactaccgc gccggctacc
 240
 agggcgcgca cgacctgctg ctgtacgaca acgcccagat cggcgctccg caccccaaca
 300
 tcactctgtga ctgctgcaag aagcacgggc tgcgggggat gcgctggaag tgccgtgtgt
 360
 gcttgacta cgacctctgc acgcagtgt acatgcacaa caagcatgag ctgccccacg
 420
 ccttcgaccg ctacgagacc gctcactcgc gccctgtcac actgagtccc cgccagggcc
 480
 tcccaggat cccactaagg ggcattcttc agggagcgaa ggtggtgcga ggccccgact
 540
 gggagtgggg ctcacaggat ggtgagtgga ggcagagggg cggggtcagg gctgggctgt
 600
 ggctggctca tggctcagcc ttagcctgct gggggggcct ctttcccag gaggggaagg
 660
 aaaccgggcc gccgga
 676

<210> 1684
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 1684
 Xaa Gly Arg Thr Gly Pro Glu Gln Pro Arg Pro Thr Trp Thr Gln Thr
 1 5 10 15
 Pro Arg Arg Ala Cys Arg Trp Ala Cys Gly Trp Cys Ala Ala Trp Thr
 20 25 30
 Gly Ser Gly Ala Ser Arg Thr Ala Ala Arg Ala Ala Trp Ala Arg Trp
 35 40 45
 Trp Ser Leu Ala Ala Thr Ala Ala Pro Arg His Pro Thr Ala Gln Trp
 50 55 60
 Ser Cys Ser Gly Thr Arg Ala Arg Ala Pro Thr Thr Ala Pro Ala Thr
 65 70 75 80
 Arg Ala Arg Thr Thr Cys Cys Thr Thr Thr Pro Arg Ser Ala Ser
 85 90 95
 Gly Thr Pro Thr Ser Ser Val Thr Ala Ala Arg Ser Thr Gly Cys Gly
 100 105 110
 Gly Cys Ala Gly Ser Ala Val Cys Ala Trp Thr Thr Thr Ser Ala Arg

	115		120		125										
Ser	Ala	Thr	Cys	Thr	Thr	Ser	Met	Ser	Ser	Pro	Thr	Pro	Ser	Thr	Ala
	130					135				140					
Thr	Arg	Pro	Leu	Thr	Arg	Ala	Leu	Ser	His						
145						150									

<210> 1685

<211> 2740

<212> DNA

<213> Homo sapiens

<400> 1685

```

ngaggaggag ccggcggcgg ctccggggaa agggaggggg gcgctccgca gccgccgccg
60
cccaggggct ggcgagggaa aggcgtacgc gctcagcaga ggggcggcag cggcggggag
120
ggggcctccc cttctccatc ctctcttct gcgggcaaaa ccccaggaac cggcagcaga
180
aactccggaa gcggcggtgc ggggggcggc agcgggtggtg gagggagcta ctggaaagaa
240
ggatgtctgc agtctgagct catccagttc catctcaaga aggagcgggc ggcagcggcg
300
gcggccgcgg ctcagatgca cgctaagaac ggccggcgga gcagtagccg cagctccccg
360
gtgtctggcc cccctgccgt ttgcgagacc ctggccgtcg cctccgcctc cccaatggcg
420
gcggcggcgg agggcccccga gcagagcgcga gagggcagcg cgagcggcgg gggcatgcag
480
gcggcagcgc ccccttcgtc gcagccgcac ccgcagcagc tccaagagca ggaagaaatg
540
caagaggaga tggagaagct gcgagaggaa aacgagactc tcaagaacga gatcgatgag
600
ctgagaaccg agatggacga gatgaggagc actttcttcg aggaggatgc ctgtcaactg
660
caggaaatgc gccacgagtt ggagagagcc aacaaaaact gccggatcct gcagtaccgc
720
ctccgcaaag ccgagcgcaa aaggctccgc tacgcccaga ccggggaaat cgacggggag
780
ctgttgcgca gcctggagca ggacctcaag gttgcaaagg atgtatctgt gagacttcac
840
catgaattag aaaatgtgga agaaaagaga acaacaacag aagatgaaaa tgagaaactg
900
aggcaacagc tcatagaagt tgaaattgca aagcaagctt tacagaatga actggaaaaa
960
atgaaagagt tacccttaaa aagaagagga agcaaagatt tgccaaaatc tgaaaaaaag
1020
gctcaacaga ctcccacaga ggaggacaat gaagatctga agtgccagct gcagtttgtt
1080
aaggaagaag ccgctttgat gagaaagaaa atggccaaga ttgataaaga aaaggacaga
1140
tttgaacacg agctccagaa gtacagatcc ttttatgggg atctggacag tcctttgccc
1200
aaaggagaag ccggaggccc tcccagcact agggaggccg agctcaagct acggctaagg
1260

```


ctggtggagg aagaagccaa catcctgggc aggaaaatcg tcgaactgga ggtggagaac
1320
agaggcctga aggcggaact ggacgacctt agggcgcatg acnnttcaac ggctcggcca
1380
accgctcat gaggnagca gagcgaatcc ctgtcggagc tgcggcagca cctgcagctg
1440
gtggaagacg agacggagct gctgcgagg aacgtggccg acctggagga gcagaacaag
1500
cgcatcacgg cggagctcaa caagtacaag tacaagnntc cggcggccac gacagcgcgc
1560
ggcaccacga caacgccana gaccgaggcc ctgcaggagg agctgaagge ggcgcgctg
1620
cagatcaacg agctcagcgg caaggctcatg cagctgcagt acgagaaccg cgtgcttatg
1680
tccaacatgc agcgctacga cctggcctcg cacctgggca tccgcggcag ccccgcgac
1740
agcgacgccg agagcgacgc gggcaagaag gagagcgacg acgactcgcg gcctccgcac
1800
cgcaagcgcg aagggcccat cggcgcgag agcgactcgg aggaggtggn cgcaacatcc
1860
gctgcctcan cgccactcg ctcttctac ccggcgcccg ggccctggcc caagagcttc
1920
tccgatcggc agcagatgaa ggacatccgc tcggaggccg agcgctggg caagaccatc
1980
gaccggctca tcgccgacac gagcaccatc atcaccgagg cgcgcacnt acgtggccaa
2040
cggggacctg ttncggact catggacgag gaggacgacg gcagccgcat ccgggagcac
2100
gagctgctct accgcatcaa cgctcagatg aaggccttcc gcaaggagct gcagaccttc
2160
atcgaccgcc tcgaggtgcc caagtctgcg gacgaccgcg gcgccgagga gccatttcc
2220
gtgagtcaga tgttccagcc tatcatttta cttatttca ttcttgatt attttcatca
2280
ctttcttaca caacaatatt taaacttgtc ttcttttta cactgttttt tgtactgtaa
2340
atctttcatc atttaccatt cattgtagta ttttcagttt gtttattttg ttcaccttc
2400
aagacaagaa gtaaaagaag tataatttct gtagtaacca atgctataaa aacactgaag
2460
actgcttatt tctttacaaa gatacaactc atcttaccaa gaccaaattc aataagaagc
2520
ccaaacacta aaatatttca ggtaagaaag tgtgacattt ttctgtatga attgttttaa
2580
ttttacttc ttttttcat cctgttgte ttctcttgat aaataattgg catactgaat
2640
ataaaaatgg actacatgtc tcataattat ttctcagtag ttcactatta ttattcaaaa
2700
gctggacgga cattcacaat ttggtcacat ttccaaaaag
2740

<210> 1686

<211> 463

<212> PRT

<213> Homo sapiens

<400> 1686

Xaa Gly Gly Ala Gly Gly Gly Ser Gly Glu Arg Glu Gly Gly Ala Pro
 1 5 10 15
 Gln Pro Pro Pro Arg Gly Trp Arg Gly Lys Gly Val Arg Ala Gln
 20 25 30
 Gln Arg Gly Gly Ser Gly Gly Glu Gly Ala Ser Pro Ser Pro Ser Ser
 35 40 45
 Ser Ser Ala Gly Lys Thr Pro Gly Thr Gly Ser Arg Asn Ser Gly Ser
 50 55 60
 Gly Val Ala Gly Gly Gly Ser Gly Gly Gly Ser Tyr Trp Lys Glu
 65 70 75 80
 Gly Cys Leu Gln Ser Glu Leu Ile Gln Phe His Leu Lys Lys Glu Arg
 85 90 95
 Ala Ala Ala Ala Ala Ala Ala Ala Gln Met His Ala Lys Asn Gly Gly
 100 105 110
 Gly Ser Ser Ser Arg Ser Ser Pro Val Ser Gly Pro Pro Ala Val Cys
 115 120 125
 Glu Thr Leu Ala Val Ala Ser Ala Ser Pro Met Ala Ala Ala Ala Glu
 130 135 140
 Gly Pro Gln Gln Ser Ala Glu Gly Ser Ala Ser Gly Gly Gly Met Gln
 145 150 155 160
 Ala Ala Ala Pro Pro Ser Ser Gln Pro His Pro Gln Gln Leu Gln Glu
 165 170 175
 Gln Glu Glu Met Gln Glu Glu Met Glu Lys Leu Arg Glu Glu Asn Glu
 180 185 190
 Thr Leu Lys Asn Glu Ile Asp Glu Leu Arg Thr Glu Met Asp Glu Met
 195 200 205
 Arg Asp Thr Phe Phe Glu Glu Asp Ala Cys Gln Leu Gln Glu Met Arg
 210 215 220
 His Glu Leu Glu Arg Ala Asn Lys Asn Cys Arg Ile Leu Gln Tyr Arg
 225 230 235 240
 Leu Arg Lys Ala Glu Arg Lys Arg Leu Arg Tyr Ala Gln Thr Gly Glu
 245 250 255
 Ile Asp Gly Glu Leu Leu Arg Ser Leu Glu Gln Asp Leu Lys Val Ala
 260 265 270
 Lys Asp Val Ser Val Arg Leu His His Glu Leu Glu Asn Val Glu Glu
 275 280 285
 Lys Arg Thr Thr Thr Glu Asp Glu Asn Glu Lys Leu Arg Gln Gln Leu
 290 295 300
 Ile Glu Val Glu Ile Ala Lys Gln Ala Leu Gln Asn Glu Leu Glu Lys
 305 310 315 320
 Met Lys Glu Leu Ser Leu Lys Arg Arg Gly Ser Lys Asp Leu Pro Lys
 325 330 335
 Ser Glu Lys Lys Ala Gln Gln Thr Pro Thr Glu Glu Asp Asn Glu Asp
 340 345 350
 Leu Lys Cys Gln Leu Gln Phe Val Lys Glu Glu Ala Ala Leu Met Arg
 355 360 365
 Lys Lys Met Ala Lys Ile Asp Lys Glu Lys Asp Arg Phe Glu His Glu
 370 375 380
 Leu Gln Lys Tyr Arg Ser Phe Tyr Gly Asp Leu Asp Ser Pro Leu Pro
 385 390 395 400
 Lys Gly Glu Ala Gly Gly Pro Pro Ser Thr Arg Glu Ala Glu Leu Lys

405 410 415
 Leu Arg Leu Arg Leu Val Glu Glu Glu Ala Asn Ile Leu Gly Arg Lys
 420 425 430
 Ile Val Glu Leu Glu Val Glu Asn Arg Gly Leu Lys Ala Glu Leu Asp
 435 440 445
 Asp Leu Arg Gly Asp Asp Xaa Ser Thr Ala Arg Pro Thr Arg Ser
 450 455 460

<210> 1687
 <211> 326
 <212> DNA
 <213> Homo sapiens

<400> 1687
 gtgcacacag gtgagcgtcc ctacaagtgt ccacactgcg actatgcagg taccagtcg
 60
 ggctcgctca agtatcacct tcagcgtcac caccgagagc agaagaacag tgcgggttcc
 120
 tgggectccc ccagaacccc cgccaccttc ccagcggggc tctactgcagc cgcagtcagg
 180
 agccaagcca actcaggcct cagccacctg ggtagagggc actgcaagta cccggcctcc
 240
 ttcgagcagc accggaccag ggtcccgtag gaagcctgct agccctggga ggaccctgcg
 300
 aaacggcgat gtggtgaagc cgaact
 326

<210> 1688
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 1688
 Val His Thr Gly Glu Arg Pro Tyr Lys Cys Pro His Cys Asp Tyr Ala
 1 5 10 15
 Gly Thr Gln Ser Gly Ser Leu Lys Tyr His Leu Gln Arg His His Arg
 20 25 30
 Glu Gln Lys Asn Ser Ala Gly Ser Trp Ala Ser Pro Arg Thr Pro Ala
 35 40 45
 Thr Phe Pro Ala Gly Leu Thr Ala Ala Ala Val Arg Ser Gln Ala Asn
 50 55 60
 Ser Gly Leu Ser His Leu Gly Arg Gly His Cys Lys Tyr Pro Ala Ser
 65 70 75 80
 Phe Glu Gln His Arg Thr Arg Val Pro
 85

<210> 1689
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 1689
 nggggaagcc atggctgctt aaggacaatg cactgtcagc tcggtgatgt cttgatttgg
 60

tctgggattc tgcacttagt aattgcagat aatactcatg tggcgccaag gaaaaaaaaa
 120
 ttggcctttt cccagtcctat taagcctaaa caaaccacat cactttacat caggcagatc
 180
 atgtggtacc agaattttcc agtttggcgg actatcttga tcaaatacaac taaattattg
 240
 ccactgtggc tatctgtgaa agaacacaat gaagaaaatc tggagcctta tctcatactc
 300
 a
 301

<210> 1690

<211> 91

<212> PRT

<213> Homo sapiens

<400> 1690

Met	His	Cys	Gln	Leu	Gly	Asp	Val	Leu	Ile	Trp	Ser	Gly	Ile	Leu	His
1			5					10					15		
Leu	Val	Ile	Ala	Asp	Asn	Thr	His	Val	Ala	Pro	Arg	Lys	Lys	Lys	Leu
	20						25					30			
Ala	Phe	Ser	Gln	Ser	Ile	Lys	Pro	Lys	Gln	Thr	Thr	Ser	Leu	Tyr	Ile
	35					40					45				
Arg	Gln	Ile	Met	Trp	Tyr	Gln	Asn	Phe	Pro	Val	Trp	Arg	Thr	Ile	Leu
	50					55					60				
Ile	Lys	Ser	Thr	Lys	Leu	Pro	Leu	Trp	Leu	Ser	Val	Lys	Glu	His	
65				70				75					80		
Asn	Glu	Glu	Asn	Leu	Glu	Pro	Tyr	Leu	Ile	Leu					
			85					90							

<210> 1691

<211> 483

<212> DNA

<213> Homo sapiens

<400> 1691

nacgcgttcc ggtatgccga tgggcccgtg ctgctgggcg tccgccggcg gcgcgggtgag
 60
 ttgtgccttg aagtgtggga ccgcggcccc ggcattcctc aagacaaaca aaagtcattc
 120
 ttcgaagaat tcaaacgcct ggacagtcac cagaccgcg ccgagaaagg cctggggcctg
 180
 ggccctggcga ttgccgacgg cttgtgcccgc gtgctcgggc atcgcttgag cgtgcgttcg
 240
 tggccgggca agggcagcgt gtccagcgtg cgcggtgccg tggcgcgcac ccaggtcagc
 300
 gcgcctgccca agccggcgca ggaaagcggc cagccgttga gtggcgcgca ggtgctgtgt
 360
 gtgaataaca aagaaagcat cctgatcggc atgcgcagct tgctcccgcg ctggggcctgc
 420
 gaagtctggc ccgcgcgcga ccaggcgcaa tgtgccgcgc tgttggctga ggggtgtgcgg
 480
 ccg
 483

<210> 1692
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 1692
 Xaa Ala Phe Arg Tyr Ala Asp Gly Pro Val Leu Leu Gly Val Arg Arg
 1 5 10 15
 Arg Arg Gly Glu Leu Cys Leu Glu Val Trp Asp Arg Gly Pro Gly Ile
 20 25 30
 Pro Gln Asp Lys Gln Lys Ser Phe Phe Glu Glu Phe Lys Arg Leu Asp
 35 40 45
 Ser His Gln Thr Arg Ala Glu Lys Gly Leu Gly Leu Gly Leu Ala Ile
 50 55 60
 Ala Asp Gly Leu Cys Arg Val Leu Gly His Arg Leu Ser Val Arg Ser
 65 70 75 80
 Trp Pro Gly Lys Gly Ser Val Phe Ser Val Arg Val Pro Leu Ala Arg
 85 90 95
 Thr Gln Val Ser Ala Pro Ala Lys Pro Ala Gln Glu Ser Gly Gln Pro
 100 105 110
 Leu Ser Gly Ala Gln Val Leu Cys Val Asn Asn Lys Glu Ser Ile Leu
 115 120 125
 Ile Gly Met Arg Ser Leu Leu Pro Arg Trp Gly Cys Glu Val Trp Pro
 130 135 140
 Ala Arg Asp Gln Ala Gln Cys Ala Ala Leu Leu Ala Glu Gly Val Arg
 145 150 155 160
 Pro

<210> 1693
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 1693
 acgcgtgttc catctgcagc cgtgcgaaaa ctctcccacc atgtcgcaga ctggatactt
 60
 cgaggattca agctactaca agtgtgacac agatgacacc ttcgaagccc gagaggagat
 120
 actggggggg atgaggcctt cgacactgcc aactcctcca tcgtgtcttg cgagagtatc
 180
 cgtttttttg tcaatgtcaa ccttgagatg caggccacca aactgagaa tgaagcgact
 240
 tccggtggct gtgtgtcct gcacacctcc cgaaaggcca gcatcgtcct gaacgagacg
 300
 gccacctccc tggataacgt gctgcggacc atg
 333

<210> 1694
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 1694

```

Met Val Arg Ser Thr Leu Ser Arg Glu Val Ala Val Ser Phe Arg Thr
 1             5             10             15
Met Leu Ala Phe Arg Glu Val Cys Arg Ser Thr Gln Pro Pro Glu Val
             20             25             30
Ala Ser Phe Ser Val Leu Val Ala Cys Ile Ser Arg Leu Thr Leu Thr
             35             40             45
Lys Lys Arg Ile Leu Ser Pro Asp Thr Met Glu Glu Leu Ala Val Ser
             50             55             60
Lys Ala Ser Ser Pro Pro Val Ser Pro Leu Gly Leu Arg Arg Cys His
65             70             75             80
Leu Cys His Thr Cys Ser Ser Leu Asn Pro Arg Ser Ile Gln Ser Ala
             85             90             95
Thr Trp Trp Glu Ser Phe Arg Thr Ala Ala Asp Gly Thr Arg
             100             105             110

```

<210> 1695

<211> 485

<212> DNA

<213> Homo sapiens

<400> 1695

```

tgatcagctt tatcaggagt ttttgcaagt accgcagatt tatgttgaat cctagtaagc
60
gccaggaatt tgaagactat cttcaccagg aaatgcaaaa tagcaaggaa aatttcacca
120
cagcacacaa cacatcgga cgttcagctc caccctccac aaatgtccgg agtgcagacc
180
aagagaatgg agaaataacc cttgtaaagc gtcgtatatt tggccacagg attatcactg
240
tcaactttgc gatcaatgat ctatatttct tttctgaaat ggagaaattt aatgatctgg
300
tcagttcagc ccacatgctg cagggtcaacc gggcatataa tgagaatgat gtgatcctaa
360
tgcggtccaa aatgaacatt atccaaaaac ttttcttgaa ttctgacatc cctccaaagc
420
tgagggtgaa tgtccctgag ttccagaagg atgccatcct tgctgccatc acagagggct
480
accta
485

```

<210> 1696

<211> 148

<212> PRT

<213> Homo sapiens

<400> 1696

```

Met Leu Asn Pro Ser Lys Arg Gln Glu Phe Glu Asp Tyr Leu His Gln
 1             5             10             15
Glu Met Gln Asn Ser Lys Glu Asn Phe Thr Thr Ala His Asn Thr Ser
             20             25             30
Gly Arg Ser Ala Pro Pro Ser Thr Asn Val Arg Ser Ala Asp Gln Glu
             35             40             45
Asn Gly Glu Ile Thr Leu Val Lys Arg Arg Ile Phe Gly His Arg Ile

```


50 55 60
 Ile Thr Val Asn Phe Ala Ile Asn Asp Leu Tyr Phe Phe Ser Glu Met
 65 70 75 80
 Glu Lys Phe Asn Asp Leu Val Ser Ser Ala His Met Leu Gln Val Asn
 85 90 95
 Arg Ala Tyr Asn Glu Asn Asp Val Ile Leu Met Arg Ser Lys Met Asn
 100 105 110
 Ile Ile Gln Lys Leu Phe Leu Asn Ser Asp Ile Pro Pro Lys Leu Arg
 115 120 125
 Val Asn Val Pro Glu Phe Gln Lys Asp Ala Ile Leu Ala Ala Ile Thr
 130 135 140
 Glu Gly Tyr Leu
 145

<210> 1697
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 1697
 accagggttcc caccatcctc aggggaatca cagggttactg gctttggaga ccgagatgtc
 60
 ttcccgcctc ccaggggcct gtggatggga ctccctgcga attcgactcc caggggaaaa
 120
 gccaaagagct gcctccttgg gacaactggg gcggcagctg tgatcgacaca tggcttcagc
 180
 agaggcctga gcggctgcct ccgttggcca gcaggctctg agagcactcg cccggcctga
 240
 ctgttcaccc atcctttcac ccggaggcca gctgtggctg tctgtgctct cagaggggag
 300
 gcgatgggca aggcgcctgc catgcagatg ggtgggtg
 337

<210> 1698
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 1698
 Met Ala Gly Ala Leu Pro Ile Ala Ser Pro Leu Arg Ala Gln Thr Ala
 1 5 10 15
 Thr Ala Gly Leu Arg Val Lys Gly Trp Met Asn Ser Gln Ala Gly Arg
 20 25 30
 Val Leu Ser Glu Pro Ala Gly Gln Arg Arg Gln Pro Leu Arg Pro Leu
 35 40 45
 Leu Lys Pro Cys Ala Ile Thr Ala Ala Ala Pro Val Val Pro Arg Arg
 50 55 60
 Gln Leu Leu Ala Phe Pro Leu Gly Val Glu Phe Ala Gly Ser Pro Ile
 65 70 75 80
 His Arg Pro Leu Gly Gly Gly Lys Thr Ser Arg Ser Pro Lys Pro Val
 85 90 95
 Thr Cys Asp Ser Pro Glu Asp Gly Gly Asn Leu
 100 105

<210> 1699
 <211> 442
 <212> DNA
 <213> Homo sapiens

<400> 1699
 nacgcgttcc ttaaggatca tcctgagggt ctgtacgtag accttctaata tgcggatatg
 60
 aatgggtgtgg tgcgcggcaa gcgcatcgaa cgcaccagcc tccacaaggt ttacgagaag
 120
 ggcattaacc tgcctgcctc tctatttgcc ctggatatca atggctcaac ggtggaaagc
 180
 accggcctgg gtctggacat cggatgatgt gaccgaatct gttatccaat ccccgacacc
 240
 ctgtgcaatg aaccctggca aaagcgccca accgcgcaac tgctgatgac catgcacgaa
 300
 cttgaagggg aacctttttt cgccgatcct cgcgaagtac tccgccaagt tgtaagcaaa
 360
 tttgacgacc tcggtctgac catctgcgcc gcattcgagc tggagttcta cctgattgac
 420
 caggagaacg tgaatggccg gc
 442

<210> 1700
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 1700
 Xaa Ala Phe Leu Lys Asp His Pro Glu Val Leu Tyr Val Asp Leu Leu
 1 5 10 15
 Ile Ala Asp Met Asn Gly Val Val Arg Gly Lys Arg Ile Glu Arg Thr
 20 25 30
 Ser Leu His Lys Val Tyr Glu Lys Gly Ile Asn Leu Pro Ala Ser Leu
 35 40 45
 Phe Ala Leu Asp Ile Asn Gly Ser Thr Val Glu Ser Thr Gly Leu Gly
 50 55 60
 Leu Asp Ile Gly Asp Ala Asp Arg Ile Cys Tyr Pro Ile Pro Asp Thr
 65 70 75 80
 Leu Cys Asn Glu Pro Trp Gln Lys Arg Pro Thr Ala Gln Leu Leu Met
 85 90 95
 Thr Met His Glu Leu Glu Gly Glu Pro Phe Phe Ala Asp Pro Arg Glu
 100 105 110
 Val Leu Arg Gln Val Val Ser Lys Phe Asp Asp Leu Gly Leu Thr Ile
 115 120 125
 Cys Ala Ala Phe Glu Leu Glu Phe Tyr Leu Ile Asp Gln Glu Asn Val
 130 135 140
 Asn Gly Arg
 145

<210> 1701
 <211> 8265
 <212> DNA
 <213> Homo sapiens

<400> 1701
nacgcgtgaa gggagggcgga ggccggagcc cgagggcgac ccgagaagcg gcggggcggc
60
gggccggcgg gcggggcgca gagccaggca gcgcaggtat agccaggctg gagaaaagaa
120
gctgccacca tggttgcact ttcactgaag atcagcattg ggaatgtggt gaagacgatg
180
cagtttgagc cgtctaccat ggtgtacgac gcctgccgca tcattcgtga gcggatccca
240
gaggccccag ctggtcctcc cagcgacttt gggctctttc tgtcagatga tgaccccaaa
300
aagggtatat ggctggagggc tgggaaagct ttggactact acatgctccg aaatggggac
360
actatggagt acaggaagaa acagagaccc ctgaagatcc gtatgctgga tggaaactgtg
420
aagacgatca tgggtgatga ctctaagact gtcactgaca tgctcatgac catctgtgcc
480
cgcattggca tcaccaatca tgatgaatat tcattggttc gagagctgat ggaagaaaag
540
aaagaggaag gaacgggcac actcaaaaag gacaagacat tgctgcgaga tgaaaagaag
600
atggagaaac taaagcagaa attgcacaca gatgatgagt tgaactggct ggaccatggt
660
cggacactga gggagcaggg ttagaggag cagcagacgc tgctgctgcg gaggaagtgc
720
ttttactcag accagaatgt ggattcccgg gaccctgtac agctgaacct cctgtatgtg
780
caggcacgag atgacatcct gaatggctcc caccctgtct cctttgacaa ggctgtgag
840
tttgctggct tccaatgcca gatccagttt gggccccaca atgagcagaa gcacaaggct
900
ggcttccttg acctgaagga cttcctgccc aaggagtatg tgaagcagaa gggagagcgt
960
aagatcttcc aggcacacaa gaattgtggg cagatgagt agattgaggc caaggtccgc
1020
tacgtgaagc tagcccgctt tctcaagact tacggtgtct ccttcttctt ggtgaaggaa
1080
aaaatgaaag ggaagaacaa gctagtgcc aggccttctg gcatacacia ggagtgtgtg
1140
atgagagtgg atgagaagac caaggaagt atccaggagt ggaacctcac caacatcaaa
1200
cgctgggctg cgtctcccaa aagcttcacc ctggattttg gagattacca agatggctat
1260
tactcagtac agacaactga aggggagcag attgcacagc tcattgccgg ctacatcgat
1320
atcatcctga agaagaaaaa aagcaaggat cactttgggc tggaaggaga tgaggagtct
1380
actatgctgg aggactcagt gtcccccaaa aagtcaacag tcctgcagca gcaatacaac
1440
cgggtgggga aagtggagca tggctctgtg gccctgcctg ccatcatgag ctctggagcc
1500
tctggtcctg agaatttcca ggtgggcagc atgccccctg cccagcagca gattaccagc
1560

ggccagatgc accgaggaca catgctcct ctgacttcag cccagcaggc actcactgga
1620
accattaact ccagcatgca ggccgtgcag gctgcccagg ccaccctgga tgactttgac
1680
actctgccgc ctcttgcca ggatgctgcc tctaaggcct ggcgtaaaaa caagatggat
1740
gaatcaaagc atgagatcca ctctcaggta gatgccatca cagctggtac tgcgtctgtg
1800
gtgaacctga cagcagggga ccctgctgag acagactata ccgcagtggg ctgtgcagtc
1860
accacaatct cctccaacct gacggagatg tcccgtgggg tgaagctgct ggctgccttg
1920
ctggaggacg aaggcggcag tggtcggccc ctgttgccagg cagcaaaggg ccttgcgagg
1980
gcagtgtcag aactgctgcg cagtgcccaa ccagccagtg ctgagccccg tcagaacctg
2040
ctgcaagcag ctgggaacgt gggccaggcc agtggggagc tgttgcaaca aattggggaa
2100
agtgatactg acccccactt ccaggatgcg ctaatgcagc tcgccaaagc tgtggcaagt
2160
gctgcagctg ccctggtcct caaggccaag agtgtggccc agcggacaga ggactcggga
2220
cttcagaccc aagttattgc tgcagcaaca cagtgtgccc tatccacttc ccaactagt
2280
gcctgtacta aggtggtggc acctacaatc agctcacctg tctgccaaga gcaactggtg
2340
gaggctggac gactggtagc caaagccgtg aagggtctgtg tgtctgcctc ccaggcagct
2400
acagaggatg ggcaactgtt gcgaggggta ggagcagcag ccacagctgt caccagggc
2460
ctaaatgagc tgctgcagca tgtgaaagcc catgccacag gggctggggc tgctggccgt
2520
tatgaccagg ctactgacac catcctaacc gtcactgaga acatctttag ctccatgggt
2580
gatgctgggg agatggtgcg acaggcccgc atcctggccc aagccacatc tgacctggtc
2640
aatgccatca aggctgatgc tgagggggaa agtgatectg agaactcccg caagctcctg
2700
agtgtgccca agatcctcgc tgatgccacc gccaaagtgg tggaggcggc caaggagca
2760
gccgcccacc ctgacagtga ggaacagcag cagcgactgc gtgaagcagc tgaggggctt
2820
cgcattggcca ccaatgcagc tgcgcagaac gccatcaaga agaagttggt gcagcgctg
2880
gagcatgcag ccaagcaagc tgcagcctct gcaacacaga ccattgctgc agcccaacat
2940
gcagcctctg cccccaaggc ctctgccggc cccagcccc tgctggtgca gagctgcaag
3000
gcagtggcag agcagattcc actgctggtg cagggcgtcc gaggaagcca agcccagcct
3060
gacagcccca gcgctcagct tgccctcatt gctgccagcc agagcttctc gcagccaggt
3120
gggaagatgg tggcagctgc aaaggcctca gtgccaacga ttcaggacca ggcttcagcc
3180

atgcagctga gtcagtgtgc caagaacctg ggcaccgcgc tggctgaact ccggacggct
3240
gcccaagaagg ctcaggaagc atgtggacct ttggagatgg attctgcact gagtgtggta
3300
cagaatctag agaaagatct acaggaagtg aaggcagcag ctcgagatgg caagcttaaa
3360
cccttacctg gggagacaat ggagaagtgt acccaggacc tgggcaacag caccaaagcc
3420
gtgagctcag ccatcgccca gctactggga gaggttgccc agggcaatga gaattatgca
3480
ggatttgag ctcgggatgt ggcaggtggg ctgcggtcac tggcccaggc cgctagggga
3540
gtcgtgcac tgacgtcaga tcctgcagtg caggccattg tacttgatac ggccagtgat
3600
gtgtggaca aggccagcag cctcattgag gaggcgaaaa aggcagctgg ccatccaggg
3660
gacctgaga gccagcagcg gcttgcccag gtggctaaag cagtgaacca ggctctgaac
3720
cgctgtgtca gctgcctacc tggccagcgc gatgtggata atgccctgag ggcagttgga
3780
gatgccagca agcgactcct gagtgactcg cttcctccta gcaactgggac atttcaagaa
3840
gctcagagcc gggtgaatga agctgctgct gggctgaatc aggcagccac agaactgggtg
3900
caggcctctc ggggaacccc tcaggacctg gctcgagcct caggccgatt tggacaggac
3960
ttcagcacct tcctggaagc tgggtgtggag atggcaggcc aggtcccgag ccaggaggac
4020
cgagcccaag ttgtgtccaa cttgaagggc atctocatgt cttcaagcaa acttcttctg
4080
gctgccaaag ccctgtccac ggacctgct gccctaacc tcaagagtca gctggctgca
4140
gctgccaggg cagtaactga cagcatcaat cagctcatca ctatgtgcac ccagcaggca
4200
cccggccaga aggagtgtga taacgccctg cgggaattgg agacgggtccg ggaactcctg
4260
gagaacccag tccagcccat caatgacatg tcctactttg gttgcctgga cagtgtaatg
4320
gagaactcaa aggtgctggg cgaggccatg actggcatct cccaaaatgc caagaacgga
4380
aacctgccag agtttggaaga tgccatttcc acagcctcaa aggcactttg tggcttcacc
4440
gaggcagctg cacaggctgc atatctgggt ggtgtctctg accccaatag ccaagctgga
4500
cagcaagggc tagtggagcc cacacagttt gcccgtagca accaggcaat tcagatggcc
4560
tgccagagtt tgggagagcc tggctgtacc caggcccagg tgctctctgc agccaccatt
4620
gtggctaaac acacctctgc actgtgtaac agctgtcgcc tggcttctgc ccgtaccacc
4680
aatcctactg ccaagcgcca gtttgtacag tcagccaagg aggtggccaa cagcacagcc
4740
aatcttgtca agaccatcaa ggcgctagat ggggccttca cagaggagaa ccgtgccag
4800

tgccgagcag caacagcccc tctgctggag gctgtggaca atctgagtgc ctttgcgctc
4860
aaccttgagt tctccagcat tctgcccag atcagccctg agggtcgggc tgccatggag
4920
ccattgtga tctctgcaa gacaatgtta gagagtgccg ggggactcat ccagacagcc
4980
cgggccctcg cagtcaatcc ccgggacccc ccgagctggt cggtgctggc cggccactcc
5040
cgtactgtct cagactccat caagaagcta attacaagca tgagggacaa ggctccagg
5100
cagctggagt gtgaaacggc cattgcagct ctgaacagtt gtctacggga cctagaccag
5160
gcttccctcg ctgcagtcag ccagcagctt gctccccgtg agggaaatctc tcaagaggcc
5220
ttgcacactc agatgtcac tgcagtccaa gagatctccc atctcattga gccgctggcc
5280
aatgctgccc gggctgaagc ctcccagctg ggacacaagg tgtcccagat ggcgcagtac
5340
tttagccgc tcacctggc tgagtggtt gctgcctcca agaccctgag ccaccgcag
5400
cagatggcac tcctggacca gactaaaaca ttggcagagt ctgccctgca gttgctatac
5460
actgccaagg aggtggtgg taacccaaag caagcagctc acaccagga agcctggag
5520
gaggctgtgc agatgatgac cgaggccgta gaggacctga caacaaccct caacgaggca
5580
gccagtgtcg ctggggctcg gggtggtatg gtggactcca tcaccaggc catcaaccag
5640
ctagatgaag gaccaatggg tgaaccagaa ggttccttcg tggattacca aacaactatg
5700
gtgcggacag ccaaggccat tgcagtgacc gttcaggaga tggttacaa gtcaaacacc
5760
agcccagagg agctgggccc tcttgctaac cagctgacca gtgactatgg ccgtctggcc
5820
tcggaggcca agcctgcagc ggtggctgct gaaaatgaag agataggttc ccatatcaaa
5880
caccgggtac aggagctggg ccattggctgt gccgctctgg tcaccaaggc aggcgcctg
5940
cagtgcagcc ccagtgatgc ctacaccaag aaggagctca tagagtgtgc ccggagagtc
6000
tctgagaagg tctccacgt cctggctgcg ctccaggctg ggaatcgtgg caccaggcc
6060
tgcatacag cagccagcgc tgtgtctggt atcattgctg accttgacac caccatcatg
6120
ttcgccactg ctggcacact taaccgtgag ggtactgaaa cttctgcaga ccaccgggag
6180
ggcatcttaa agactgcgaa ggtgctggtg gaggacacca aggtcctggt gcaaaacgca
6240
gctgggagcc aggagaagtt ggcgcaggct gccagtcct ccgtggcgac catcaccgc
6300
ctcgctgatg tggtaagct ggggtgcagcc agcctgggag ctgaggaccc tgagaccag
6360
gtggtactaa tcaacgcagt gaaagatgta gccaaagccc tgggagacct catcagtgca
6420

acgaaggctg cagctggcaa agttggagat gaccctgctg tgtggcagct aaagaactct
6480
gccaagggtga tggtgaccaa tgtgacatca ttgcttaaga cagtaaaagc cgtggaagat
6540
gaggccacca aaggcactcg ggccctggag gcaaccacag aacacatacg gcaggagctg
6600
gcggttttct gttccccaga gccacctgcc aagacctcta cccagaaga cttcatccga
6660
atgaccaagg gtatcaccat ggcaaccgcc aaggccgttg ctgctggcaa ttcctgtcgc
6720
caggaagatg tcattgccac agccaatctg agccgccgtg ctattgcaga tatgcttcgg
6780
gcttgcaagg aagcagctta ccaccagaa gtggcccctg atgtgaggct tcgagcccgtg
6840
cactatggcc gggagtgtgc caatggctac ctggaactgc tggaccatgt actgctgacc
6900
ctgcagaagc caagcccaga actgaagcag cagttgacag gacattcaaa gcgtgtggct
6960
ggttccgtca ctgagctcat ccaggctgct gaagccatga agggaacaga atgggtagac
7020
ccaggaggacc ccacagtcac tgctgagaat gagctcctgg gagctgcagc cgccattgag
7080
gctgcagcca aaaagctaga gcagctgaag ccccgggcca aaccaagga ggcagatgag
7140
tccttgaact ttgaggagca gatactagaa gctgccaagt ccattgcagc agccaccagt
7200
gcactggtaa aggctgcgtc ggctgcccag agagaactag tggcccaagg gaagggtggg
7260
gccattccag ccaatgcact ggacgatggg cagtgggtccc agggcctcat ttctgtgccc
7320
cggatgggtg ctgcggccac caacaatctg tgtgaggcag ccaatgcagc tgtacaaggc
7380
catgccagcc aggagaagct catctcatca gccaaagcagg tagctgcctc cacagcccag
7440
ctccttgtgg cctgcaaggc caaggctgac caggactcgg aggcaatgaa acgacttcag
7500
gctgctggca acgcagtgaa gcgagcctca gataatctgg tgaaagcagc acagaaggct
7560
gcagcctttg aagagcagga gaatgagaca gtgggtggta aagagaagat ggttggcggc
7620
attgcccaga tcatcgagc acaggaagaa atgcttcgga aggaacgaga gctggaagag
7680
gcgcggaaga aactggccca gatccggcag cagcagtaca agtttctgcc ttcagagctt
7740
cgagatgagc actaaagaag cctcttctat ttaatgcaga cccggcccag agactgtgag
7800
tgccactacc aaagccttct gggctgtcgg ggcccaacct gcccacccc agcactcccc
7860
aaagtgcctg ccaaaccaca gggcctggcc ccgcccagtc ccgcagtaca tcccctgtcc
7920
cctccccaac cccaagtgcc ttcatgcctt agggccccc aagtgcctgc ccctccccag
7980
agtattaacg ctccaagagt attattaacg ctgctgtacc tcgatctgaa tctgccgggg
8040

cccagccca ctccaccctg ccagcagctt ccagccagtc cccacagcct catcagctct
 8100
 cttcaccggt ttttgatact atcttccccc acccccagct acccataggg gctgcagagt
 8160
 tataagcccc aaacaggtca tgctccaata aaaatgattc tacctacaac ctctgcctgg
 8220
 cttcaaggga gatacaagtt ttctcccagg gcagtaggag agaca
 8265

<210> 1702

<211> 2541

<212> PRT

<213> Homo sapiens

<400> 1702

Met	Val	Ala	Leu	Ser	Leu	Lys	Ile	Ser	Ile	Gly	Asn	Val	Val	Lys	Thr
1				5					10					15	
Met	Gln	Phe	Glu	Pro	Ser	Thr	Met	Val	Tyr	Asp	Ala	Cys	Arg	Ile	Ile
			20					25					30		
Arg	Glu	Arg	Ile	Pro	Glu	Ala	Pro	Ala	Gly	Pro	Pro	Ser	Asp	Phe	Gly
		35					40					45			
Leu	Phe	Leu	Ser	Asp	Asp	Asp	Pro	Lys	Lys	Gly	Ile	Trp	Leu	Glu	Ala
		50				55					60				
Gly	Lys	Ala	Leu	Asp	Tyr	Tyr	Met	Leu	Arg	Asn	Gly	Asp	Thr	Met	Glu
65					70					75					80
Tyr	Arg	Lys	Lys	Gln	Arg	Pro	Leu	Lys	Ile	Arg	Met	Leu	Asp	Gly	Thr
				85					90					95	
Val	Lys	Thr	Ile	Met	Val	Asp	Asp	Ser	Lys	Thr	Val	Thr	Asp	Met	Leu
			100					105					110		
Met	Thr	Ile	Cys	Ala	Arg	Ile	Gly	Ile	Thr	Asn	His	Asp	Glu	Tyr	Ser
		115					120					125			
Leu	Val	Arg	Glu	Leu	Met	Glu	Glu	Lys	Lys	Glu	Glu	Gly	Thr	Gly	Thr
		130				135					140				
Leu	Lys	Lys	Asp	Lys	Thr	Leu	Leu	Arg	Asp	Glu	Lys	Lys	Met	Glu	Lys
145					150					155					160
Leu	Lys	Gln	Lys	Leu	His	Thr	Asp	Asp	Glu	Leu	Asn	Trp	Leu	Asp	His
				165					170					175	
Gly	Arg	Thr	Leu	Arg	Glu	Gln	Gly	Val	Glu	Glu	His	Glu	Thr	Leu	Leu
			180					185					190		
Leu	Arg	Arg	Lys	Phe	Phe	Tyr	Ser	Asp	Gln	Asn	Val	Asp	Ser	Arg	Asp
		195					200					205			
Pro	Val	Gln	Leu	Asn	Leu	Leu	Tyr	Val	Gln	Ala	Arg	Asp	Asp	Ile	Leu
		210				215						220			
Asn	Gly	Ser	His	Pro	Val	Ser	Phe	Asp	Lys	Ala	Cys	Glu	Phe	Ala	Gly
225					230					235					240
Phe	Gln	Cys	Gln	Ile	Gln	Phe	Gly	Pro	His	Asn	Glu	Gln	Lys	His	Lys
				245					250					255	
Ala	Gly	Phe	Leu	Asp	Leu	Lys	Asp	Phe	Leu	Pro	Lys	Glu	Tyr	Val	Lys
			260					265					270		
Gln	Lys	Gly	Glu	Arg	Lys	Ile	Phe	Gln	Ala	His	Lys	Asn	Cys	Gly	Gln
		275					280					285			
Met	Ser	Glu	Ile	Glu	Ala	Lys	Val	Arg	Tyr	Val	Lys	Leu	Ala	Arg	Ser
		290				295					300				
Leu	Lys	Thr	Tyr	Gly	Val	Ser	Phe	Phe	Leu	Val	Lys	Glu	Lys	Met	Lys

305 310 315 320
 Gly Lys Asn Lys Leu Val Pro Arg Leu Leu Gly Ile Thr Lys Glu Cys
 325 330 335
 Val Met Arg Val Asp Glu Lys Thr Lys Glu Val Ile Gln Glu Trp Asn
 340 345 350
 Leu Thr Asn Ile Lys Arg Trp Ala Ala Ser Pro Lys Ser Phe Thr Leu
 355 360 365
 Asp Phe Gly Asp Tyr Gln Asp Gly Tyr Tyr Ser Val Gln Thr Thr Glu
 370 375 380
 Gly Glu Gln Ile Ala Gln Leu Ile Ala Gly Tyr Ile Asp Ile Ile Leu
 385 390 395 400
 Lys Lys Lys Lys Ser Lys Asp His Phe Gly Leu Glu Gly Asp Glu Glu
 405 410 415
 Ser Thr Met Leu Glu Asp Ser Val Ser Pro Lys Lys Ser Thr Val Leu
 420 425 430
 Gln Gln Gln Tyr Asn Arg Val Gly Lys Val Glu His Gly Ser Val Ala
 435 440 445
 Leu Pro Ala Ile Met Arg Ser Gly Ala Ser Gly Pro Glu Asn Phe Gln
 450 455 460
 Val Gly Ser Met Pro Pro Ala Gln Gln Gln Ile Thr Ser Gly Gln Met
 465 470 475 480
 His Arg Gly His Met Pro Pro Leu Thr Ser Ala Gln Gln Ala Leu Thr
 485 490 495
 Gly Thr Ile Asn Ser Ser Met Gln Ala Val Gln Ala Ala Gln Ala Thr
 500 505 510
 Leu Asp Asp Phe Asp Thr Leu Pro Pro Leu Gly Gln Asp Ala Ala Ser
 515 520 525
 Lys Ala Trp Arg Lys Asn Lys Met Asp Glu Ser Lys His Glu Ile His
 530 535 540
 Ser Gln Val Asp Ala Ile Thr Ala Gly Thr Ala Ser Val Val Asn Leu
 545 550 555 560
 Thr Ala Gly Asp Pro Ala Glu Thr Asp Tyr Thr Ala Val Gly Cys Ala
 565 570 575
 Val Thr Thr Ile Ser Ser Asn Leu Thr Glu Met Ser Arg Gly Val Lys
 580 585 590
 Leu Leu Ala Ala Leu Leu Glu Asp Glu Gly Gly Ser Gly Arg Pro Leu
 595 600 605
 Leu Gln Ala Ala Lys Gly Leu Ala Gly Ala Val Ser Glu Leu Leu Arg
 610 615 620
 Ser Ala Gln Pro Ala Ser Ala Glu Pro Arg Gln Asn Leu Leu Gln Ala
 625 630 635 640
 Ala Gly Asn Val Gly Gln Ala Ser Gly Glu Leu Leu Gln Gln Ile Gly
 645 650 655
 Glu Ser Asp Thr Asp Pro His Phe Gln Asp Ala Leu Met Gln Leu Ala
 660 665 670
 Lys Ala Val Ala Ser Ala Ala Ala Leu Val Leu Lys Ala Lys Ser
 675 680 685
 Val Ala Gln Arg Thr Glu Asp Ser Gly Leu Gln Thr Gln Val Ile Ala
 690 695 700
 Ala Ala Thr Gln Cys Ala Leu Ser Thr Ser Gln Leu Val Ala Cys Thr
 705 710 715 720
 Lys Val Val Ala Pro Thr Ile Ser Ser Pro Val Cys Gln Glu Gln Leu
 725 730 735
 Val Glu Ala Gly Arg Leu Val Ala Lys Ala Val Lys Gly Cys Val Ser

1351

1170	1175	1180
Leu Ala Gln Val Ala Lys Ala Val Thr Gln Ala Leu Asn Arg Cys Val		
1185	1190	1195
Ser Cys Leu Pro Gly Gln Arg Asp Val Asp Asn Ala Leu Arg Ala Val		1200
	1205	1210
Gly Asp Ala Ser Lys Arg Leu Leu Ser Asp Ser Leu Pro Pro Ser Thr		1215
	1220	1225
Gly Thr Phe Gln Glu Ala Gln Ser Arg Leu Asn Glu Ala Ala Ala Gly		1230
	1235	1240
Leu Asn Gln Ala Ala Thr Glu Leu Val Gln Ala Ser Arg Gly Thr Pro		1245
	1250	1255
Gln Asp Leu Ala Arg Ala Ser Gly Arg Phe Gly Gln Asp Phe Ser Thr		1260
1265	1270	1275
Phe Leu Glu Ala Gly Val Glu Met Ala Gly Gln Ala Pro Ser Gln Glu		1280
	1285	1290
Asp Arg Ala Gln Val Val Ser Asn Leu Lys Gly Ile Ser Met Ser Ser		1295
	1300	1305
Ser Lys Leu Leu Leu Ala Ala Lys Ala Leu Ser Thr Asp Pro Ala Ala		1310
	1315	1320
Pro Asn Leu Lys Ser Gln Leu Ala Ala Ala Ala Arg Ala Val Thr Asp		1325
	1330	1335
Ser Ile Asn Gln Leu Ile Thr Met Cys Thr Gln Gln Ala Pro Gly Gln		1340
1345	1350	1355
Lys Glu Cys Asp Asn Ala Leu Arg Glu Leu Glu Thr Val Arg Glu Leu		1360
	1365	1370
Leu Glu Asn Pro Val Gln Pro Ile Asn Asp Met Ser Tyr Phe Gly Cys		1375
	1380	1385
Leu Asp Ser Val Met Glu Asn Ser Lys Val Leu Gly Glu Ala Met Thr		1390
	1395	1400
Gly Ile Ser Gln Asn Ala Lys Asn Gly Asn Leu Pro Glu Phe Gly Asp		1405
	1410	1415
Ala Ile Ser Thr Ala Ser Lys Ala Leu Cys Gly Phe Thr Glu Ala Ala		1420
1425	1430	1435
Ala Gln Ala Ala Tyr Leu Val Gly Val Ser Asp Pro Asn Ser Gln Ala		1440
	1445	1450
Gly Gln Gln Gly Leu Val Glu Pro Thr Gln Phe Ala Arg Ala Asn Gln		1455
	1460	1465
Ala Ile Gln Met Ala Cys Gln Ser Leu Gly Glu Pro Gly Cys Thr Gln		1470
	1475	1480
Ala Gln Val Leu Ser Ala Ala Thr Ile Val Ala Lys His Thr Ser Ala		1485
	1490	1495
Leu Cys Asn Ser Cys Arg Leu Ala Ser Ala Arg Thr Thr Asn Pro Thr		1500
1505	1510	1515
Ala Lys Arg Gln Phe Val Gln Ser Ala Lys Glu Val Ala Asn Ser Thr		1520
	1525	1530
Ala Asn Leu Val Lys Thr Ile Lys Ala Leu Asp Gly Ala Phe Thr Glu		1535
	1540	1545
Glu Asn Arg Ala Gln Cys Arg Ala Ala Thr Ala Pro Leu Leu Glu Ala		1550
	1555	1560
Val Asp Asn Leu Ser Ala Phe Ala Ser Asn Pro Glu Phe Ser Ser Ile		1565
	1570	1575
Pro Ala Gln Ile Ser Pro Glu Gly Arg Ala Ala Met Glu Pro Ile Val		1580
1585	1590	1595
Ile Ser Ala Lys Thr Met Leu Glu Ser Ala Gly Gly Leu Ile Gln Thr		1600

1605 1610 1615
 Ala Arg Ala Leu Ala Val Asn Pro Arg Asp Pro Pro Ser Trp Ser Val
 1620 1625 1630
 Leu Ala Gly His Ser Arg Thr Val Ser Asp Ser Ile Lys Lys Leu Ile
 1635 1640 1645
 Thr Ser Met Arg Asp Lys Ala Pro Gly Gln Leu Glu Cys Glu Thr Ala
 1650 1655 1660
 Ile Ala Ala Leu Asn Ser Cys Leu Arg Asp Leu Asp Gln Ala Ser Leu
 1665 1670 1675 1680
 Ala Ala Val Ser Gln Gln Leu Ala Pro Arg Glu Gly Ile Ser Gln Glu
 1685 1690 1695
 Ala Leu His Thr Gln Met Leu Thr Ala Val Gln Glu Ile Ser His Leu
 1700 1705 1710
 Ile Glu Pro Leu Ala Asn Ala Ala Arg Ala Glu Ala Ser Gln Leu Gly
 1715 1720 1725
 His Lys Val Ser Gln Met Ala Gln Tyr Phe Glu Pro Leu Thr Leu Ala
 1730 1735 1740
 Ala Val Gly Ala Ala Ser Lys Thr Leu Ser His Pro Gln Gln Met Ala
 1745 1750 1755 1760
 Leu Leu Asp Gln Thr Lys Thr Leu Ala Glu Ser Ala Leu Gln Leu Leu
 1765 1770 1775
 Tyr Thr Ala Lys Glu Ala Gly Gly Asn Pro Lys Gln Ala Ala His Thr
 1780 1785 1790
 Gln Glu Ala Leu Glu Glu Ala Val Gln Met Met Thr Glu Ala Val Glu
 1795 1800 1805
 Asp Leu Thr Thr Thr Leu Asn Glu Ala Ala Ser Ala Ala Gly Val Val
 1810 1815 1820
 Gly Gly Met Val Asp Ser Ile Thr Gln Ala Ile Asn Gln Leu Asp Glu
 1825 1830 1835 1840
 Gly Pro Met Gly Glu Pro Glu Gly Ser Phe Val Asp Tyr Gln Thr Thr
 1845 1850 1855
 Met Val Arg Thr Ala Lys Ala Ile Ala Val Thr Val Gln Glu Met Val
 1860 1865 1870
 Thr Lys Ser Asn Thr Ser Pro Glu Glu Leu Gly Pro Leu Ala Asn Gln
 1875 1880 1885
 Leu Thr Ser Asp Tyr Gly Arg Leu Ala Ser Glu Ala Lys Pro Ala Ala
 1890 1895 1900
 Val Ala Ala Glu Asn Glu Glu Ile Gly Ser His Ile Lys His Arg Val
 1905 1910 1915 1920
 Gln Glu Leu Gly His Gly Cys Ala Ala Leu Val Thr Lys Ala Gly Ala
 1925 1930 1935
 Leu Gln Cys Ser Pro Ser Asp Ala Tyr Thr Lys Lys Glu Leu Ile Glu
 1940 1945 1950
 Cys Ala Arg Arg Val Ser Glu Lys Val Ser His Val Leu Ala Ala Leu
 1955 1960 1965
 Gln Ala Gly Asn Arg Gly Thr Gln Ala Cys Ile Thr Ala Ala Ser Ala
 1970 1975 1980
 Val Ser Gly Ile Ile Ala Asp Leu Asp Thr Thr Ile Met Phe Ala Thr
 1985 1990 1995 2000
 Ala Gly Thr Leu Asn Arg Glu Gly Thr Glu Thr Ser Ala Asp His Arg
 2005 2010 2015
 Glu Gly Ile Leu Lys Thr Ala Lys Val Leu Val Glu Asp Thr Lys Val
 2020 2025 2030
 Leu Val Gln Asn Ala Ala Gly Ser Gln Glu Lys Leu Ala Gln Ala Ala

2035	2040	2045
Gln Ser Ser Val Ala Thr Ile Thr Arg Leu Ala Asp Val Val Lys Leu		
2050	2055	2060
Gly Ala Ala Ser Leu Gly Ala Glu Asp Pro Glu Thr Gln Val Val Leu		
2065	2070	2075
Ile Asn Ala Val Lys Asp Val Ala Lys Ala Leu Gly Asp Leu Ile Ser		2080
2085	2090	2095
Ala Thr Lys Ala Ala Ala Gly Lys Val Gly Asp Asp Pro Ala Val Trp		
2100	2105	2110
Gln Leu Lys Asn Ser Ala Lys Val Met Val Thr Asn Val Thr Ser Leu		
2115	2120	2125
Leu Lys Thr Val Lys Ala Val Glu Asp Glu Ala Thr Lys Gly Thr Arg		
2130	2135	2140
Ala Leu Glu Ala Thr Thr Glu His Ile Arg Gln Glu Leu Ala Val Phe		
2145	2150	2155
Cys Ser Pro Glu Pro Pro Ala Lys Thr Ser Thr Pro Glu Asp Phe Ile		2160
2165	2170	2175
Arg Met Thr Lys Gly Ile Thr Met Ala Thr Ala Lys Ala Val Ala Ala		
2180	2185	2190
Gly Asn Ser Cys Arg Gln Glu Asp Val Ile Ala Thr Ala Asn Leu Ser		
2195	2200	2205
Arg Arg Ala Ile Ala Asp Met Leu Arg Ala Cys Lys Glu Ala Ala Tyr		
2210	2215	2220
His Pro Glu Val Ala Pro Asp Val Arg Leu Arg Ala Leu His Tyr Gly		
2225	2230	2235
Arg Glu Cys Ala Asn Gly Tyr Leu Glu Leu Leu Asp His Val Leu Leu		2240
2245	2250	2255
Thr Leu Gln Lys Pro Ser Pro Glu Leu Lys Gln Gln Leu Thr Gly His		
2260	2265	2270
Ser Lys Arg Val Ala Gly Ser Val Thr Glu Leu Ile Gln Ala Ala Glu		
2275	2280	2285
Ala Met Lys Gly Thr Glu Trp Val Asp Pro Glu Asp Pro Thr Val Ile		
2290	2295	2300
Ala Glu Asn Glu Leu Leu Gly Ala Ala Ala Ala Ile Glu Ala Ala Ala		
2305	2310	2315
Lys Lys Leu Glu Gln Leu Lys Pro Arg Ala Lys Pro Lys Glu Ala Asp		2320
2325	2330	2335
Glu Ser Leu Asn Phe Glu Glu Gln Ile Leu Glu Ala Ala Lys Ser Ile		
2340	2345	2350
Ala Ala Ala Thr Ser Ala Leu Val Lys Ala Ala Ser Ala Ala Gln Arg		
2355	2360	2365
Glu Leu Val Ala Gln Gly Lys Val Gly Ala Ile Pro Ala Asn Ala Leu		
2370	2375	2380
Asp Asp Gly Gln Trp Ser Gln Gly Leu Ile Ser Ala Ala Arg Met Val		
2385	2390	2395
Ala Ala Ala Thr Asn Asn Leu Cys Glu Ala Ala Asn Ala Ala Val Gln		2400
2405	2410	2415
Gly His Ala Ser Gln Glu Lys Leu Ile Ser Ser Ala Lys Gln Val Ala		
2420	2425	2430
Ala Ser Thr Ala Gln Leu Leu Val Ala Cys Lys Val Lys Ala Asp Gln		
2435	2440	2445
Asp Ser Glu Ala Met Lys Arg Leu Gln Ala Ala Gly Asn Ala Val Lys		
2450	2455	2460
Arg Ala Ser Asp Asn Leu Val Lys Ala Ala Gln Lys Ala Ala Ala Phe		

2465 2470 2475 2480
 Glu Glu Gln Glu Asn Glu Thr Val Val Val Lys Glu Lys Met Val Gly
 2485 2490 2495
 Gly Ile Ala Gln Ile Ile Ala Ala Gln Glu Met Leu Arg Lys Glu
 2500 2505 2510
 Arg Glu Leu Glu Glu Ala Arg Lys Lys Leu Ala Gln Ile Arg Gln Gln
 2515 2520 2525
 Gln Tyr Lys Phe Leu Pro Ser Glu Leu Arg Asp Glu His
 2530 2535 2540

<210> 1703
 <211> 346
 <212> DNA
 <213> Homo sapiens

<400> 1703
 ggatcccgag gagaaaaatc ctctgttact tcatgggtca tgtgactgag aatcttttta
 60
 ggaatctgtg atggagaaga atgactcctc ttcttctctg agtcctgtag taatgcattc
 120
 tctgtcttac ccttctccat gactgctgcc tggctgtgcc tagccttgct ctgatccaca
 180
 ctgagctggc cttgagcagg gtcgcacctg tacatgaaga caatggctgg tttctcactg
 240
 gactctcctt tcgcctctgt gaaccagtga tggcgctgaa ctggaggaag aggcagcatg
 300
 tgaatgactg tgccatccat ggccaccaag ttccctttct ctcgct
 346

<210> 1704
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 1704
 Met Asp Gly Thr Val Ile His Met Leu Pro Leu Pro Pro Val Gln Arg
 1 5 10 15
 His His Trp Phe Thr Glu Ala Lys Gly Glu Ser Ser Glu Lys Pro Ala
 20 25 30
 Ile Val Phe Met Tyr Arg Cys Asp Pro Ala Gln Gly Gln Leu Ser Val
 35 40 45
 Asp Gln Ser Lys Ala Arg Thr Asp Gln Ala Ala Val Met Glu Lys Gly
 50 55 60
 Arg Ala Glu Asn Ala Leu Leu Gln Asp Ser Glu Lys Lys Arg Ser His
 65 70 75 80
 Ser Ser Pro Ser Gln Ile Pro Lys Lys Ile Leu Ser His Met Thr His
 85 90 95
 Glu Val Thr Glu Asp Phe Ser Pro Arg Asp
 100 105

<210> 1705
 <211> 377
 <212> DNA
 <213> Homo sapiens

<400> 1705

gtgcaccttt tctcaggact cgctcagaag gtccttctgg gaggacaatg gacaagacta
60
aaccatcaaa tccattctca atgggtcaaa ttccaaattt tctgaaggg ctggcttcta
120
ctgggtgctcc aatcgagttg cagaaaggta tacagggtgg agcaagttta tttaatcctg
180
gttttggtgctg gaacccaaaat ccacaagttc aaaccttgaa gaattctcaa ggttctattc
240
ataatttagt gaggtctgga gttactgttg aaaggaaagt taatgtaggg gcacaaggag
300
cttttaactc tgcccctgca ccacagatgg aatttccac agttcctcca tacaaccct
360
cttccttcgg agctagc
377

<210> 1706

<211> 110

<212> PRT

<213> Homo sapiens

<400> 1706

Met	Asp	Lys	Thr	Lys	Pro	Ser	Asn	Pro	Phe	Ser	Met	Gly	Gln	Ile	Pro
1				5					10					15	
Asn	Phe	Pro	Glu	Gly	Leu	Ala	Ser	Thr	Gly	Ala	Pro	Ile	Glu	Leu	Gln
		20						25					30		
Lys	Gly	Ile	Gln	Gly	Gly	Ala	Ser	Leu	Phe	Asn	Pro	Gly	Phe	Gly	Trp
		35					40					45			
Asn	Gln	Asn	Pro	Gln	Val	Gln	Thr	Leu	Lys	Asn	Ser	Gln	Gly	Ser	Ile
		50				55					60				
His	Asn	Leu	Val	Arg	Ser	Gly	Val	Thr	Val	Glu	Arg	Lys	Val	Asn	Val
65				70						75				80	
Gly	Ala	Gln	Gly	Ala	Phe	Asn	Ser	Ala	Pro	Ala	Pro	Gln	Met	Glu	Phe
			85						90					95	
Pro	Thr	Val	Pro	Pro	Tyr	Asn	Pro	Ser	Ser	Phe	Gly	Ala	Ser		
			100					105					110		

<210> 1707

<211> 427

<212> DNA

<213> Homo sapiens

<400> 1707

nnttcggtga acccgaagcc cggacgcagc gccgataccc atgtgcgccc agtactacgc
60
catcacgcca agcgagtgtc catcatcggg gccgggctag ccggcatgga ggctgcgcga
120
gttctcagcg aacgcgcaca cgaacctctc atcgtcgagg ccagcgacca cattggcgga
180
gtcatccttg cgggtggtca accttcttc aaggaggacg acctagctct gctggagtgg
240
taccgcacca ccctggagga gttgggcgtg gagattcgac tcaacaccac cgtaacggct
300

gatcttatcg cttccttcgg ggccgatcac gtcgtcctgg cgaccggatc gaggccgcgt
 360
 cgactcgacc taggtgatga tgccaagggtc attgacgcca ccgacgctct gctcaaccgc
 420
 gacgcgt
 427

<210> 1708
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 1708
 Xaa Ser Val Asn Pro Lys Pro Gly Arg Ser Ala Asp Thr His Val Arg
 1 5 10 15
 Pro Val Leu Arg His His Ala Lys Arg Val Leu Ile Ile Gly Ala Gly
 20 25 30
 Leu Ala Gly Met Glu Ala Ala Arg Val Leu Ser Glu Arg Ala His Glu
 35 40 45
 Pro Leu Ile Val Glu Ala Ser Asp His Ile Gly Gly Val Ile Leu Ala
 50 55 60
 Gly Gly Gln Pro Ser Phe Lys Glu Asp Asp Leu Ala Leu Leu Glu Trp
 65 70 75 80
 Tyr Arg Thr Thr Leu Glu Glu Leu Gly Val Glu Ile Arg Leu Asn Thr
 85 90 95
 Thr Val Thr Ala Asp Leu Ile Ala Ser Phe Gly Ala Asp His Val Val
 100 105 110
 Leu Ala Thr Gly Ser Arg Pro Arg Arg Leu Asp Leu Gly Asp Asp Ala
 115 120 125
 Lys Val Ile Asp Ala Thr Asp Ala Leu Leu Asn Arg Asp Ala
 130 135 140

<210> 1709
 <211> 446
 <212> DNA
 <213> Homo sapiens

<400> 1709
 acgcgtgaag gggaccagga gggtggacac agaccattgc aatggaaatg atgatttaga
 60
 ctgttctttt ctgactgatg actgggagtc agggaagatg aatgcagagt ctgtgatcac
 120
 ctctctttcc agccacatca tatctcagcc tcttgaggga aactcccata gcttgtctct
 180
 tcagtcccag ttgacagctt ctgaacgttt ccaagagaat agttcggatc attcagaaac
 240
 caggttggtg caagagggtc tctttcaggc aatcctgctt gctgtgtgct taatcatttc
 300
 tgcattgtga agatgggtta tgggagaaat attagccagt gtcttcacat gtcattgat
 360
 gataactgta gcttatgtga aatcattgtt tctcagcctt gccagctatt tcaaaaccac
 420
 tgcctgtgct cggtttgtca aaattt
 446

<210> 1710
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 1710
 Met Asn Ala Glu Ser Val Ile Thr Ser Ser Ser Ser His Ile Ile Ser
 1 5 10 15
 Gln Pro Pro Gly Gly Asn Ser His Ser Leu Ser Leu Gln Ser Gln Leu
 20 25 30
 Thr Ala Ser Glu Arg Phe Gln Glu Asn Ser Ser Asp His Ser Glu Thr
 35 40 45
 Arg Leu Leu Gln Glu Val Phe Phe Gln Ala Ile Leu Leu Ala Val Cys
 50 55 60
 Leu Ile Ile Ser Ala Cys Ala Arg Trp Val Met Gly Glu Ile Leu Ala
 65 70 75 80
 Ser Val Phe Thr Cys Ser Leu Met Ile Thr Val Ala Tyr Val Lys Ser
 85 90 95
 Leu Phe Leu Ser Leu Ala Ser Tyr Phe Lys Thr Thr Ala Cys Ala Arg
 100 105 110
 Phe Val Lys Ile
 115

<210> 1711
 <211> 426
 <212> DNA
 <213> Homo sapiens

<400> 1711
 nggggggattc atgttagtat ttgtcagaaa aggcttttga aagagccaaa ttaaaaagag
 60
 cactagaaca tgaacaggga aagcagagga aatacttgta gaaagtattt ttacagctc
 120
 cctcaatata attcagtaat gttcattcct ggtgagaagt ctgtccgcac acacagcatc
 180
 agccaagcag cagaagcagt ggtgtctggg gggctgggaa gtttttcccc caaatacca
 240
 ccccatgcac tgcccagtcc ccagacccca aagactttgt cctcgctca cgcacctttt
 300
 gcaggctcac actgtctgtg tgcgcaagag gtagcgacag gagacaatgg ggaaagagct
 360
 gaaggaggca aacaaggcca gggggaaagc ctacctcgag gcacagaggg gccccaagat
 420
 ggatat
 426

<210> 1712
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 1712
 Met Asn Arg Glu Ser Arg Gly Asn Thr Cys Arg Lys Tyr Phe Leu Gln


```

      1           5           10           15
Leu Pro Gln Tyr Asn Ser Val Met Phe Ile Pro Gly Glu Lys Ser Val
      20           25           30
Arg Thr His Ser Ile Ser Gln Ala Ala Glu Ala Val Val Ser Gly Gly
      35           40           45
Leu Gly Ser Phe Ser Pro Lys Tyr Pro Pro His Ala Leu Pro Ser Pro
      50           55           60
Gln Thr Pro Lys Thr Leu Ser Ser Pro His Ala Pro Phe Ala Gly Ser
      65           70           75           80
His Cys Leu Cys Ala Gln Glu Val Ala Thr Gly Asp Asn Gly Glu Arg
      85           90           95
Ala Glu Gly Gly Lys Gln Gly Gln Gly Glu Ser Leu Pro Arg Gly Thr
      100          105          110
Glu Gly Pro Gln Asp Gly Tyr
      115

```

<210> 1713
 <211> 328
 <212> DNA
 <213> Homo sapiens

```

<400> 1713
tctagaaagg tttatttcat gggccaaggc ttgtgtttcc aaagccagga agggctgaag
60
ccagaattgg ccctggctgc ttgccacaga gtctggccgg gggaccctgg acctcagcag
120
ggcatgatg aggtcagctt tggaggagca gggccagcgt gtctgtcttt ctgctcctgg
180
aatgagcctc actccctccc tgc tcaaggc agcccttcac ccagccgccc ggacaggtgc
240
cctgtgccac ctgccatccc tgggattctc catctcagtg agtgctccct ggggcctggg
300
aacgcatctg gctggtgact cctggggg
328

```

<210> 1714
 <211> 99
 <212> PRT
 <213> Homo sapiens

```

<400> 1714
Met Gly Gln Gly Leu Cys Phe Gln Ser Gln Glu Gly Leu Lys Pro Glu
      1           5           10           15
Leu Ala Leu Ala Ala Cys His Arg Val Trp Pro Gly Asp Pro Gly Pro
      20           25           30
Gln Gln Gly His Asp Glu Val Ser Phe Gly Gly Ala Gly Pro Ala Cys
      35           40           45
Pro Ala Phe Cys Ser Trp Asn Glu Pro His Ser Leu Pro Ala Gln Gly
      50           55           60
Ser Pro Ser Pro Ser Arg Arg Asp Arg Cys Pro Val Pro Pro Ala Ile
      65           70           75           80
Pro Gly Ile Leu His Leu Ser Glu Cys Ser Leu Gly Pro Gly Asn Ala
      85           90           95
Ser Gly Trp

```


<210> 1715
 <211> 489
 <212> DNA
 <213> Homo sapiens

<400> 1715
 gttgccagcg atgggccgca tttgtacatc cgggtatttc gtgttcgggtg tgggtgtaaaa
 60
 gatgccccat gtgtgacatt ctgtggatag ttattgttag cattatttga caagttctag
 120
 aaatcgatcc acccaggcgt gtagctgcgg tatttcatca gagttgatcg ttgcgatgag
 180
 ttgatcatgg cctgtcatgg cgtagtcttc tacgtcgtaa agtatgagac aatccacggt
 240
 aatatggtgt tttttggcca actcggaagc cgggggtgtcg gggaagtcgg tccctgtaag
 300
 gtatgggcct gtcccaatga cgacgtgtgc tgggtccatg aggagtctcg ccaaggttcg
 360
 aactcattac cgtcgaatac gacgtgtgc ccatcggcgg tgtcgaatcg aatcctcaaa
 420
 gtgtatccgt actcgggtgc gcgcaacagg tgcctaacct cagcgctagt gggctgtgca
 480
 ctgacgcgt
 489

<210> 1716
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 1716
 Met Ala Cys His Gly Val Val Phe Tyr Val Val Lys Tyr Glu Thr Ile
 1 5 10 15
 His Gly Asn Met Val Phe Phe Gly Gln Leu Gly Ser Arg Gly Val Gly
 20 25 30
 Glu Val Gly Pro Cys Lys Val Trp Ala Cys Pro Asn Asp Asp Val Cys
 35 40 45
 Trp Val His Glu Glu Phe Val Gln Gly Ser Asn Ser Leu Pro Ser Asn
 50 55 60
 Thr Thr Leu Ser Pro Ser Ala Val Ser Asn Arg Ile Leu Lys Val Tyr
 65 70 75 80
 Pro Tyr Ser Val Ser Arg Asn Arg Cys Leu Thr Ser Ala Leu Val Gly
 85 90 95
 Cys Ala Leu Thr Arg
 100

<210> 1717
 <211> 312
 <212> DNA
 <213> Homo sapiens

<400> 1717

nggcatacaa cggagtaaaa accacatcaa cagaagtga aacaggccca gagagcgtga
 60
 gaggtttctg gtttcaagaa ggcacactga gtccctgcac ccgatgcctc tccttccccca
 120
 aatcccactg gaatacacag agagacataa aaacaaggag tgtcctgtag cagagcagcc
 180
 aggctggctc atgagacaga gggagcagtc ttctgggaga catggctctt gctgctgcgg
 240
 atcagccaac agatccatgg aaagcaaagg gcccttctcc ggaggcttcc tggggcctgc
 300
 catgaatgtg tc
 312

<210> 1718
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 1718
 Met Ala Gly Pro Arg Lys Pro Pro Glu Lys Gly Pro Leu Leu Ser Met
 1 5 10 15
 Asp Leu Leu Ala Asp Pro Gln Gln Gln Glu Pro Cys Leu Pro Glu Asp
 20 25 30
 Cys Ser Leu Cys Leu Met Ser Gln Pro Gly Cys Ser Ala Thr Gly His
 35 40 45
 Ser Leu Phe Leu Cys Leu Ser Val Tyr Ser Ser Gly Ile Trp Gly Arg
 50 55 60
 Arg Gly Ile Gly Cys Arg Asp Ser Val Cys Leu Leu Glu Thr Arg Asn
 65 70 75 80
 Leu Ser Arg Ser Leu Gly Leu Phe Pro Leu Leu Leu Met Trp Phe Leu
 85 90 95
 Leu Arg Cys Met Pro
 100

<210> 1719
 <211> 404
 <212> DNA
 <213> Homo sapiens

<400> 1719
 tgatcaccac ggccctgccca ttttttgtcg ggaccgcaga ccgtatgctg cccctcgaag
 60
 tcagagacaa tccaaccggc ctgcaaaact gcggtcttgc ccggggcaac gtcgtagggt
 120
 ccaacagttt ctccaacctc ataggtagaa gaagtgtctat agctgctgga aatggagatg
 180
 tggatcacat cgagcagtgg gaagtcaatg cctgccgaaa ccgaccagtt cttcgtctta
 240
 gtttctgtga tggatcgctg gaccggctgc ggagtgtcgt tgagttggaa atcgtcacgt
 300
 cccagcagag ccatcgaagt agctgcgcac cacatgaacg ggctgtccgt gtcacccgga
 360
 ttcgagcagg gagcacccat tggtngtgg tgtccccggg gggt
 404

<210> 1720
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 1720
 Met Gly Ala Pro Cys Ser Asn Pro Gly Asp Thr Asp Ser Pro Phe Met
 1 5 10 15
 Trp Cys Ala Ala Thr Ser Met Ala Leu Leu Gly Arg Asp Asp Phe Gln
 20 25 30
 Leu Asn Asp Thr Pro Gln Pro Val Thr Arg Ser Ile Thr Glu Thr Lys
 35 40 45
 Thr Lys Asn Trp Ser Val Ser Ala Gly Ile Asp Phe Pro Leu Leu Asp
 50 55 60
 Val Ile His Ile Ser Ile Ser Ser Ser Tyr Ser Thr Ser Ser Thr Tyr
 65 70 75 80
 Glu Val Gly Glu Thr Val Gly Pro Tyr Asp Val Ala Pro Gly Lys Thr
 85 90 95
 Ala Val Leu Gln Ala Gly Trp Ile Val Ser Asp Phe Glu Gly Gln His
 100 105 110
 Thr Val Cys Gly Pro Asp Lys Lys Trp Gln Gly Arg Gly Asp
 115 120 125

<210> 1721
 <211> 529
 <212> DNA
 <213> Homo sapiens

<400> 1721
 ccatggccac cctttcagga cagagctgcc cttcccatgc tggaggagcc acagggcctg
 60
 gtcgctgtgg cttcagcctc ccagctcctc ctgtcctctg ctgggcactt gtaatgtcca
 120
 ggcactccct gcttggatca ggggatctgg gtttcattctt cccagctcct cctgtcctct
 180
 gctgggcacc tgtgatgtcc aggcactccc tgcctggatt gggggatctg ggtttcatct
 240
 tcccagctcc tccgtgctc cgtggggcac ctgtgatgtc caggcactcc ctgcttggat
 300
 cgggggggtct ggggtttgtg ctatacttgg tgcctccctt cactcaggcc ccttcttgac
 360
 tctgcagagc taccctcgc catctctttc acgcgggcct cctgcagtct ctgtgtcac
 420
 cctgtgactc tgcttccggt gttgtcaa at gggggtcac ccaggaccg caccactggg
 480
 tcgtgtgcag gtttctgggg tggcagagtg cggatgagtg ggcacgcgt
 529

<210> 1722
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 1722

```

Met Ala Thr Leu Ser Gly Gln Ser Cys Pro Ser His Ala Gly Gly Ala
 1              5              10              15
Thr Gly Pro Gly Arg Cys Gly Phe Ser Leu Pro Ala Pro Pro Val Leu
      20              25              30
Cys Trp Ala Leu Val Met Ser Arg His Ser Leu Leu Gly Ser Gly Asp
      35              40              45
Leu Gly Phe Ile Phe Pro Ala Pro Pro Val Leu Cys Trp Ala Pro Val
      50              55              60
Met Ser Arg His Ser Leu Leu Gly Leu Gly Asp Leu Gly Phe Ile Phe
65              70              75              80
Pro Ala Pro Pro Val Leu Arg Trp Ala Pro Val Met Ser Arg His Ser
      85              90              95
Leu Leu Gly Ser Gly Gly Leu Gly Phe Val Leu Tyr Leu Val Leu Pro
      100              105              110
Phe Thr Gln Ala Pro Ser
      115

```

<210> 1723

<211> 371

<212> DNA

<213> Homo sapiens

<400> 1723

```

acgcgtttga agctggatgc atggatatcc agcgccgccca tcgggtcaaa tgggttgacg
60
ctgcccttga tggtcaccgg ggcgtagcga tctaccttac cgttgatgtc gacgctcgcc
120
ggtttggcct ggcggtgtc aatgggtgcc atcttcccg ttagttgttg aatggcagtg
180
gcaaagttag gcgtgaggct gaagtcggcg aagttggccg agccatcatt gatcgcaacc
240
tgcccaatgt gaatgcccag tggcttctct ttgctggccg ccggctgtct tgttgccagt
300
gtcgccgggg tgcgggatca gcaagtcac gatgttggtg gggcggtcat cggtgatcgc
360
tgcattcaat a
371

```

<210> 1724

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1724

```

Met Asp Ile Gln Arg Arg His Arg Val Lys Trp Val Asp Ala Ala Leu
 1              5              10              15
Asp Gly His Arg Gly Val Ala Ile Tyr Leu Thr Val Asp Val Asp Ala
      20              25              30
Arg Arg Phe Gly Leu Ala Ala Val Asn Gly Ala Asn Leu Pro Val Glu
      35              40              45
Leu Leu Asn Gly Ser Gly Lys Val Gly Arg Glu Ala Glu Val Gly Glu
      50              55              60
Val Gly Arg Ala Ile Ile Asp Arg Asn Leu Pro Asn Val Asn Ala Gln

```


65		70		75		80									
Trp	Leu	Leu	Phe	Ala	Gly	Arg	Arg	Leu	Ser	Cys	Cys	Gln	Cys	Arg	Pro
			85					90						95	
Gly	Ala	Gly	Ser	Ala	Ser	His	Arg	Cys	Trp	Trp	Gly	Gly	His	Arg	
			100					105					110		

<210> 1725
 <211> 807
 <212> DNA
 <213> Homo sapiens

<400> 1725
 ngtgcacctg gtatggtgcc ctctgggtct aagcctgtcc ttgtacacac tcacactttg
 60
 atttgaagtg acctcttccc tctgagcctt ctggtgtcca actctcccct tctctaggac
 120
 catgcagtgc tggaggccga gaggcagaag atgtcagccc ttgtgcgagg gctgcagagg
 180
 gagctggagg agacttcaga ggagacaggg cattggcaga gtatggtcca gaagaacaag
 240
 gaggatctta gagccaccaa gcaggaactc ctgcagctgc gaatggagaa ggaggagatg
 300
 gaagaggagc ttggagagaa gatagaggtc ttgcagaggg aattagagca ggcccagagc
 360
 agtgctggag atactcgcca ggttgaggtg ctcaagaagg agctgctccg gacacaggag
 420
 gagcttaagg aactgcaggc agaacggcag agccaggagg tggctgggcg acaccgggac
 480
 cgggagttgg agaagcagct ggcggtcctg agggctcagg ctgatcgagg tcgggagctg
 540
 gaagaacaga acctccagct acaaaagacc ctccagcaat tgcgacagga ctgtgaagag
 600
 gcttccaagg ctaagatggt ggccgaggca gaggcaacag tgctggggca gcggcgggac
 660
 gcagtggaga cgacgcttcg ggagaccagc gaggaatac acgaattccg ccggcgcatc
 720
 ctgggtttgg agcagcagct gaaggagact cgaggtctgg tggatggtgg ggaagcgggtg
 780
 gaggcacgac tacgggacaa gctgcag
 807

<210> 1726
 <211> 230
 <212> PRT
 <213> Homo sapiens

<400> 1726
 Asp His Ala Val Leu Glu Ala Glu Arg Gln Lys Met Ser Ala Leu Val
 1 5 10 15
 Arg Gly Leu Gln Arg Glu Leu Glu Glu Thr Ser Glu Glu Thr Gly His
 20 25 30
 Trp Gln Ser Met Phe Gln Lys Asn Lys Glu Asp Leu Arg Ala Thr Lys
 35 40 45
 Gln Glu Leu Leu Gln Leu Arg Met Glu Lys Glu Glu Met Glu Glu Glu

50	55	60
Leu Gly Glu Lys Ile	Glu Val Leu Gln Arg	Glu Leu Glu Gln Ala Arg
65	70	75
Ala Ser Ala Gly Asp Thr Arg Gln Val	Glu Val Leu Lys Lys	Glu Leu
85	90	95
Leu Arg Thr Gln Glu Glu Leu Lys	Glu Leu Gln Ala Glu Arg	Gln Ser
100	105	110
Gln Glu Val Ala Gly Arg His Arg Asp Arg	Glu Leu Glu Lys	Gln Leu
115	120	125
Ala Val Leu Arg Val Glu Ala Asp Arg Gly Arg	Glu Leu Glu Glu Gln	
130	135	140
Asn Leu Gln Leu Gln Lys Thr Leu Gln Gln	Leu Arg Gln Asp Cys Glu	
145	150	155
Glu Ala Ser Lys Ala Lys Met Val Ala Glu Ala	Glu Ala Thr Val Leu	
165	170	175
Gly Gln Arg Arg Ala Ala Val Glu Thr Thr	Leu Arg Glu Thr Gln Glu	
180	185	190
Glu Asn Asp Glu Phe Arg Arg Arg Ile Leu Gly	Leu Glu Gln Gln Leu	
195	200	205
Lys Glu Thr Arg Gly Leu Val Asp Gly Gly	Glu Ala Val Glu Ala Arg	
210	215	220
Leu Arg Asp Lys Leu Gln		
225	230	

<210> 1727

<211> 474

<212> DNA

<213> Homo sapiens

<400> 1727

aaccaactct ccacaacatc gccagaaaca gtcgctgcca agaggctcca ccatgtttta
60

gcagcttcag aagacaaaga taagatgaaa aaggaagttt tacaaagctc aagggacatt
120

atgcaatcca aatcagcttg cgaaattaaa caaagtcacc aagaatgtag tacccaacaa
180

acacaacaga agaagtattt ggagcagttg cacttgcccc aaagcaaacc aatttcccca
240

aatttcaaag ttaaaacat caaacttcca actctagatc atacattaaa tgaacagac
300

cacagctatg aaagtcataa acagcaatct gagattgatg ttcaaacctt taccaaaaaa
360

caatatctga aaaccaagaa aactgaagca agcactgaat gtagtcataa gcaatctctg
420

gctgaaagac attatcagtt acctaagaag gagaagaag tgacagtaca attg
474

<210> 1728

<211> 130

<212> PRT

<213> Homo sapiens

<400> 1728

Met Lys Lys Glu Val Leu Gln Ser Ser Arg Asp Ile Met Gln Ser Lys


```

      1           5           10           15
Ser Ala Cys Glu Ile Lys Gln Ser His Gln Glu Cys Ser Thr Gln Gln
      20           25           30
Thr Gln Gln Lys Lys Tyr Leu Glu Gln Leu His Leu Pro Gln Ser Lys
      35           40           45
Pro Ile Ser Pro Asn Phe Lys Val Lys Thr Ile Lys Leu Pro Thr Leu
      50           55           60
Asp His Thr Leu Asn Glu Thr Asp His Ser Tyr Glu Ser His Lys Gln
      65           70           75           80
Gln Ser Glu Ile Asp Val Gln Thr Phe Thr Lys Lys Gln Tyr Leu Lys
      85           90           95
Thr Lys Lys Thr Glu Ala Ser Thr Glu Cys Ser His Lys Gln Ser Leu
      100          105          110
Ala Glu Arg His Tyr Gln Leu Pro Lys Lys Glu Lys Arg Val Thr Val
      115          120          125
Gln Leu
      130

```

<210> 1729
 <211> 470
 <212> DNA
 <213> Homo sapiens

```

<400> 1729
acgcgtgact cgccataaca ttgctgacac gttttccacg gcaagggagg catcatgacg
60
aggatcgacg tgtggctgtg gtcggtgcgc gtctataagt cccggtcgtt ggctaccgcc
120
gccgtcaagg ggggccacat tcgcctcaat ggagaccggt ttaaaccctc ccacgacgtg
180
aaaccggcg ataccgtcac catccacacc cccggatggg accgggtcct caaggtcatc
240
aaccgatca cgaaaagagt cggcgccaaa ctgcggtcg aggcttacga agatctgtca
300
nngcccccg acccgctac ctctctgnet cccctcgccc gccgcgaccg tggggctgga
360
cgaccacca agaaggatcg tcgcgagatc gatcggtcc gaggcggga ctctcgctat
420
tgaggactct tcgcccggcc caacacacca cggctcgcg cgaattggc
470

```

<210> 1730
 <211> 131
 <212> PRT
 <213> Homo sapiens

```

<400> 1730
His Val Phe His Gly Lys Gly Gly Ile Met Thr Arg Ile Asp Val Trp
1           5           10           15
Leu Trp Ser Val Arg Val Tyr Lys Ser Arg Ser Leu Ala Thr Ala Ala
20          25          30
Val Lys Gly Gly His Ile Arg Leu Asn Gly Asp Pro Val Lys Pro Ser
35          40          45
His Asp Val Lys Pro Gly Asp Thr Val Thr Ile His Thr Pro Gly Trp

```



```

      50              55              60
Asp Arg Val Leu Lys Val Ile Asn Pro Ile Thr Lys Arg Val Gly Ala
65              70              75              80
Lys Leu Ala Val Glu Ala Tyr Glu Asp Leu Ser Xaa Pro Pro Asp Pro
      85              90              95
Pro Thr Ser Leu Xaa Pro Leu Ala Arg Arg Asp Arg Gly Ala Gly Arg
      100              105              110
Pro Thr Lys Lys Asp Arg Arg Glu Ile Asp Arg Leu Arg Gly Arg Asp
      115              120              125
Ser Arg Tyr
      130

```

<210> 1731
 <211> 534
 <212> DNA
 <213> Homo sapiens

```

<400> 1731
agcgctccct gcctgctgct gggcggaggg aaggcggcaa gagctgcgga gcccctggaa
60
gagcttccag gaacctgctg ctgtgggata aaggaatgag gttcagaaag gggcagggag
120
ttgcccgcag ccgcaccgca cgtcttcagc ccgaccgttg tcctgacctc tctgtcccgt
180
cccctgcccc gtctcaccat ggccttcttg acacagctga tgctgctgct ctggaagaat
240
ttcatgtatc gccggagaca gccggtccag ctcttggtcg aattgctgtg gcctctcttc
300
ctcttcttca tcttggtggc tgttcgccac tcccaccgc ccctggagca ccatgaatgc
360
cacttcccaa acaagccact gccatcggcg ggcaccgtgc cctggctcca ggggtctcatc
420
tgtaatgtga acaacacctg ctttccgcag ctgacaccgg gcgaggagcc cgggcgctg
480
agcaacttca acgactccct ggtctcccgg ctgctacgtc ggagagaggc tgga
534

```

<210> 1732
 <211> 112
 <212> PRT
 <213> Homo sapiens

```

<400> 1732
Met Ala Phe Trp Thr Gln Leu Met Leu Leu Leu Trp Lys Asn Phe Met
1              5              10              15
Tyr Arg Arg Arg Gln Pro Val Gln Leu Leu Val Glu Leu Leu Trp Pro
      20              25              30
Leu Phe Leu Phe Phe Ile Leu Val Ala Val Arg His Ser His Pro Pro
      35              40              45
Leu Glu His His Glu Cys His Phe Pro Asn Lys Pro Leu Pro Ser Ala
      50              55              60
Gly Thr Val Pro Trp Leu Gln Gly Leu Ile Cys Asn Val Asn Asn Thr
65              70              75              80
Cys Phe Pro Gln Leu Thr Pro Gly Glu Glu Pro Gly Arg Leu Ser Asn

```


	85		90		95
Phe Asn Asp Ser Leu Val Ser Arg Leu Leu Arg Arg Arg Glu Ala Gly					
100		105		110	

<210> 1733

<211> 409

<212> DNA

<213> Homo sapiens

<400> 1733

```

acgcgtgatg gccgatccga ctgtgcccgg tcacgacccg cggcgtccga gtcctgaccc
60
ggacatgccg tggetgatcc gcgacatcac cctcggcaac aacgtgatcg cgggcagcac
120
gggcaactgc accctctgcg tcgaggacta ctcgcgcagg tacgcggcga ggatcctcaa
180
catcgtctcc gacggcaacg tcctgcagcg cgcacgcggc gcacagccag cgtggctggt
240
tggtgtggtc gcggggatca gcgaactccg atccgtacgt attctccagc ctcgacgctt
300
accggggcag cactgggtttt taggaccttc gctcgggtctc gatcgatggc gtgctgtcac
360
cgcgggccgga gcgctgctcc cgggcattga tctcaaggcg gtcacgagg
409

```

<210> 1734

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1734

Met Ala Asp Pro Thr Val Pro Gly His Asp Pro Arg Arg Pro Ser Pro					
1	5	10	15		
Asp Pro Asp Met Pro Trp Leu Ile Arg Asp Ile Thr Leu Gly Asn Asn					
20	25	30			
Val Ile Ala Gly Ser Thr Gly Asn Cys Thr Leu Cys Val Glu Asp Tyr					
35	40	45			
Ser Arg Arg Tyr Ala Ala Arg Ile Leu Asn Ile Val Ser Asp Gly Asn					
50	55	60			
Val Leu Gln Arg Ala Ser Ala Ala Gln Pro Ala Trp Leu Val Gly Val					
65	70	75	80		
Val Ala Gly Ile Ser Glu Leu Arg Ser Val Arg Ile Leu Gln Pro Arg					
85	90	95			
Arg Leu Pro Gly Asp His Trp Phe Leu Gly Pro Ser Leu Gly Leu Asp					
100	105	110			
Arg Trp Arg Ala Val Thr Ala Ala Gly Ala Leu Leu Pro Gly Ile Asp					
115	120	125			
Leu Lys Ala Val Thr Arg					
130					

<210> 1735

<211> 342

<212> DNA

<213> Homo sapiens

<400> 1735

ggcgccatgg tcatcagcat catgtgttcg gcgcccgtg cacgaatgtt cgtgcgatca
60
agcgcgccctt ttagttcgac gcacggtaaa gcccggtgcgc atcgatgtag gccaggaccg
120
cgtcaggcac caggaaacgt accgacttcc cgctggccgg cagttgacgg atctgggtgg
180
cggacaccgc aagcggggtc tgccagacga atgcaatatt cccgttcggc ccggtcaggg
240
ccaaggggtc acttaccgac cgcgcggcca gcaggttgcg caaggcatcc ggcggttcgc
300
tggcggcatc cgggcgttgc aaaaccagga tgtggcaatg ct
342

<210> 1736

<211> 112

<212> PRT

<213> Homo sapiens

<400> 1736

Met	Val	Ile	Ser	Ile	Met	Cys	Ser	Ala	Pro	Ala	Ala	Arg	Met	Phe	Val
1				5					10					15	
Arg	Ser	Ser	Ala	Pro	Phe	Ser	Ser	Thr	His	Gly	Lys	Ala	Arg	Ala	His
			20					25					30		
Arg	Cys	Arg	Pro	Gly	Pro	Arg	Gln	Ala	Pro	Gly	Asn	Val	Pro	Thr	Ser
		35				40					45				
Arg	Trp	Pro	Ala	Val	Asp	Gly	Ser	Gly	Trp	Arg	Thr	Pro	Gln	Ala	Gly
	50				55				60						
Ser	Ala	Arg	Arg	Met	Gln	Tyr	Ser	Arg	Ser	Ala	Arg	Ser	Gly	Pro	Arg
65				70					75					80	
Gly	His	Leu	Pro	Thr	Ala	Arg	Pro	Ala	Gly	Cys	Ala	Arg	His	Pro	Ala
			85					90					95		
Val	Arg	Trp	Arg	His	Pro	Gly	Val	Ala	Lys	Pro	Gly	Cys	Gly	Asn	Ala
			100					105					110		

<210> 1737

<211> 506

<212> DNA

<213> Homo sapiens

<400> 1737

acgcgtgttc accatgacct ggaccgcccc gcggcccgac gggtcgagcg cggaggagtc
60
ggacgagacg actgtgttgg tccttgccat ctacgcgcc caccgggtacg acgtgcaggc
120
gtccggcgcc cagtcacct cccacccagg cgaccgggtg gcgcggttgc acctcaacca
180
aggcagtacc acggcgaagg tcacgatcac cctgcgctaa ccttcaagc gtcttcagca
240
ccgacctata agtctccag acacttttac gaccggccct ccccttggg gtgggccccg
300
tccttttcgt gtcgtgggat gcacctggca gcaccacctc cggcccccat ggagaacagt
360

aggtatcctc gcagggtact acggccaagg catatttgac gttccacgct tgccactgcc
 420
 gtcttagggc catactgccg ccacgcagct gagacggtga ccaatcgggt aaggtgactg
 480
 gttgccgtag tccatgcgag gccggc
 506

<210> 1738
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 1738
 Met Ala Leu Arg Arg Gln Trp Gln Ala Trp Asn Val Lys Tyr Ala Leu
 1 5 10 15
 Ala Val Val Pro Cys Glu Asp Thr Tyr Cys Ser Pro Trp Gly Pro Glu
 20 25 30
 Val Val Leu Pro Gly Ala Ser His Asp Thr Lys Arg Thr Gly Pro Thr
 35 40 45
 Pro Arg Gly Arg Ala Gly Arg Lys Ser Val Trp Glu Thr Tyr Arg Ser
 50 55 60
 Val Leu Lys Thr Leu Glu Gly Leu Ala Gln Gly Asp Arg Asp Leu Arg
 65 70 75 80
 Arg Gly Thr Ala Leu Val Glu Val Gln Pro Arg His Pro Val Ala Trp
 85 90 95
 Val Gly Gly Asp Val Gly Ala Gly Arg Leu His Val Val Pro Val Gly
 100 105 110
 Arg

<210> 1739
 <211> 420
 <212> DNA
 <213> Homo sapiens

<400> 1739
 cgcgttattg aaaatgctgc tttttttact aaattaggac agcgtttaat cggcgcat
 60
 catcaagtga cggttgatgg atttggttac cgtgttgata tgcggttacg cccttttgg
 120
 gagtctgggc cattggttag cacgtttaat tcaatagagg actattatca aacccatggt
 180
 cgagagtggg agtggttatgc catggttaaa gcccggtgta ttggtggtga ggacgagtat
 240
 aaacaagcgt tagaaaggat gttaaggcct ttcgtattta gacgttacat tgatttttagc
 300
 gctattgatt ctttgcgaaa aatgaaaacg atgatcagtg ctgaagttcg tcgcaagggg
 360
 ttaaaagaca atattaagtt gggaatggga gggatccgtg aaattgaatt tgtggctcaa
 420

<210> 1740
 <211> 140
 <212> PRT

<213> Homo sapiens

<400> 1740

```

Arg Val Ile Glu Asn Ala Ala Phe Phe Thr Lys Leu Gly Gln Arg Leu
 1             5             10             15
Ile Gly Ala Leu His Gln Val Thr Val Asp Gly Phe Val Tyr Arg Val
      20             25             30
Asp Met Arg Leu Arg Pro Phe Gly Glu Ser Gly Pro Leu Val Ser Thr
      35             40             45
Phe Asn Ser Ile Glu Asp Tyr Tyr Gln Thr His Gly Arg Glu Trp Glu
      50             55             60
Cys Tyr Ala Met Val Lys Ala Arg Val Ile Gly Val Glu Asp Glu Tyr
65             70             75             80
Lys Gln Ala Leu Glu Arg Met Leu Arg Pro Phe Val Phe Arg Arg Tyr
      85             90             95
Ile Asp Phe Ser Ala Ile Asp Ser Leu Arg Lys Met Lys Thr Met Ile
      100            105            110
Ser Ala Glu Val Arg Arg Lys Gly Leu Lys Asp Asn Ile Lys Leu Gly
      115            120            125
Met Gly Glu Ile Arg Glu Ile Glu Phe Val Ala Gln
      130            135            140

```

<210> 1741

<211> 378

<212> DNA

<213> Homo sapiens

<400> 1741

```

nnacgcgctcg aggtgattca ggccgacgcc actgacccgc tggtccttca cagtctcaat
60
gggcaggctcg acgtcgtcgt ctccaaccgc ccctacgtgc cagccggcgc cgtggaggac
120
accgagacgg cccagcacga gcccacggtg gcgctctatg gcggggggccc ggacgggtga
180
gagattccga ttgacgtcct gngtgcgctc agtcgcgctg ctgccaccgg cggagtgtctc
240
gtcatggagc acgaccacga gcagggggcg ctgctgccgg cgcccgcttc gtgagccggg
300
ttcaagcagg ccgagaccgg tcaggacctc accggccgcg accgctacct gcgcgcggtg
360
cgtaaaccccc gctggtag
378

```

<210> 1742

<211> 59

<212> PRT

<213> Homo sapiens

<400> 1742

```

Xaa Arg Val Glu Val Ile Gln Ala Asp Ala Thr Asp Pro Leu Val Leu
 1             5             10             15
His Ser Leu Asn Gly Gln Val Asp Val Val Val Ser Asn Pro Pro Tyr
      20             25             30
Val Pro Ala Gly Ala Val Glu Asp Thr Glu Thr Ala Gln His Glu Pro

```


35 40 45
 Thr Val Ala Leu Tyr Gly Gly Gly Pro Asp Gly
 50 55

<210> 1743

<211> 4121

<212> DNA

<213> Homo sapiens

<400> 1743

atcacgtaca actgcaagga ggagttccag atccatgatg agctgctcaa ggctcattac
 60
 acgttggggcc ggctctcgga caacacccct gagcactacc tgggtgcaagg ccgctacttc
 120
 ctggtgcggg atgtcactga gaagatggat gtgctgggca ccgtgggaag ctgtggggcc
 180
 cccaacttcc ggcaggtgca ggggtgggctc actgtgttcg gcatgggaca gccagcctc
 240
 tcagggttca ggcgggtcct ccagaaactc cagaaggacg gacataggga gtgtgtcatc
 300
 ttctgtgtgc gggaggaacc tgtgtctttc ctgctgtcag atgaggactt tgtgtcctac
 360
 acacctcgag acaagcagaa ccttcatgag aacctccagg gccttggacc cggggtccgg
 420
 gtggagagcc tggagctggc catccggaaa gagatccacg actttgccc a gctgagcgag
 480
 aacacatacc atgtgtacca taacaccgag gacctgtggg gggagcccca tgctgtggcc
 540
 atccatggtg aggacgactt gcatgtgacg gaggaggtgt acaagcggcc cctcttcctg
 600
 cagcccacct acaggtacca ccgcctgccc ctgcccagac aaggagatcc cctggaggcc
 660
 cagttggacg cctttgtcag tgttctccgg gagaccccca gcctgctgca gctccgtgat
 720
 gccacgggc ctccccagc cctcgtcttc agctgccaga tgggcgtggg caggaccaac
 780
 ctgggcatgg tcctgggcac cctcactctg cttaccgca gtgggaccac ctcccagcca
 840
 gaggtgccc ccacgcaggc caagcccctg cctatggagc agttccaggt gatccagagc
 900
 tttctccgca tggtgcccca gggaaggagg atggtggaag aggtggacag agccatcact
 960
 gcctgtgccg agttgcatga cctgaaagaa gtggtcttgg aaaaccagaa gaagttagaa
 1020
 ggtatccgac cggagagccc agcccaggga agcggcagcc gacacagcgt ctggcagagg
 1080
 gcgctgtgga gcctggagcg atacttctac ctgatcctgt ttaactacta ccttcatgag
 1140
 cagtaccgac tggcctttgc cctcagtttc agccgctggc tgtgtgcca ccctgagctg
 1200
 taccgcctgc ccgtgacgt gagctcagca ggccctgtgg ctccgaggga cctcatcgcc
 1260
 aggggctccc tacgggagga cgatctggtc tccccggacg cgctcagcac tgtcagagag
 1320

atggatgtgg ccaacttccg gcgggtgccc cgcattgccc tctacggcac ggcccagccc
1380
agcgccaagg ccctggggag catcctggcc tacctgacgg acgccaagag gaggctgcgg
1440
aaggttgtct gggtagacct tcgggaggag gccgtgttgg agtgtgacgg gcacacctac
1500
agcctgcggt ggccctggggc ccctgtggct cctgaccagc tggagaccct ggaggccccag
1560
ctgaaggccc atctaagcga gcctccccca ggcaaggagg gccccctgac ctacagggttc
1620
cagacctgcc ttaccatgca ggagggtcttc agccagcacc gcaggggcctg tcctggcctc
1680
acctaccacc gcattcccat gccggacttc tgtgcccccc gagaggagga ctttgaccag
1740
ctgctggagg ccctgcgggc cgcctctctc aaggacccag gcactggctt cgtgttcagc
1800
tgcctcagcg gccaggggcg taccacaact gcgatgggtg tggctgtcct ggccttcttg
1860
cacatccaag gcttccccga ggtgggtgag gaggagctcg tgagtgtgcc tgatgccaag
1920
ttactaagg gtgaatttca ggtagtaatg aagggtgtgc agctgctacc cgatgggcac
1980
cgtgtgaaga aggaggtgga cgcagcgctg gacactgtca gcgagaccat gacgccccatg
2040
cactaccacc tgcgggagat catcatctgc acctaccgcc aggcgaaggc agcgaaagag
2100
gcgcaggaaa tgcggaggct gcagctgcgg agcctgcagt acttgagcg ctatgtctgc
2160
ctgattctct tcaacgcgt cctccacctg gagaaggccg actcctggca gagggccttc
2220
agcacctgga tgcaggaggt ggcacggaag gctggcatct acgagatcct taacgagctg
2280
ggcttccccg agctggagag cggggaggac cagcccttct ccaggctgcg ctaccgggtg
2340
caggagcaga gctgcagcct cgagccctct gccccgagg acttgctgta gggggcctta
2400
ctccctgtcc cccacccac agggccccac gcaggcctgg ggtgtctgag gtgctcttgg
2460
ctgggagcgg ccctgagggg tgctggcctt gaaatgattc cccacttcc tggagagact
2520
gagcggagtt gggagccttt ttagaaagaa ctttttatag gacagggaga cagcacagcc
2580
atcccttgca aaccaccaag gtgtgtggct gacctccagg gaggagcact cactggagtg
2640
ctcacaagg gcacactgct gtgtgtacct tgcaagacgg cggcggttca gcctccaagg
2700
ggctcactcc ccagttgcc aaacactgtg gatctctctg tcctcttctc ccctctctca
2760
gattggcctg gcagccccctg gcacagagca gacctgcca ctggtagctc cccacttctc
2820
tactcctgct gctctgcat tgccgctccc cttcttgctg cccaagcact gccctcgggc
2880
gtctggcagc ctgaggtggg tggaggggac agtgttcttg atagatctat tatgtgaaag
2940

gcagcttcac ccagttttct ggactctcat gcccccatct ccgacctggg agacttcagg
 3000
 aatgacaacc taccagcct ggtggggctg gcaggatggt ggaggtttct caaggagctg
 3060
 gagacttcag ggagccctc tcatggggag gaaagagctt ccagggggcg aacgcagcac
 3120
 agaggaagag gcctgctcca cttgtctggg aacctgggca ggaggcacag aggaagccaa
 3180
 ggcttgagc tgcaggctcc cggcatctc tctctgtccc ggcagcccag gatggcctgg
 3240
 tgccccacc tgctgcagca ggagcccaaa ggagtgttag ctgaggggtg ttgctggggt
 3300
 ggtcctcatg gacagtgagg tgtgcaaggg tgcactgagg gtggtgggag gggatcacct
 3360
 gggttccagg ccatccttgc tgagcatctt tgagcctgcc ttccggtggg agcagaaaag
 3420
 gccagacct gctgagttag aggtgctgg gatccactgt ttccacacag cgggaaggct
 3480
 gctgggaaca ggtggcagag aagtgccatg tttgcgttga gccttgagc tcttcagct
 3540
 ggggactggt gcttgctgaa acccaggagc tgaacagtga ggaggctgtc caccttgctt
 3600
 ggctcactgg gaccaggaag gcctgtcttt ggtaggctc gtgtacttct gcaggaaaaa
 3660
 aaaaaaagga tgtgtcattg gtcatgatat ttgaaaaggg gaggaggccg aagttgttcc
 3720
 catttatcca gtattggaag atatttgacc cccttggtg aattcttttg cagaactact
 3780
 gtgtgtctgt tctactacct ttcaggttta ttgtttttat ttttgcagta attagacgt
 3840
 ttaatttct ttgcagacaa ggtctagatg cggagtcaga gatgggactg aatggggagg
 3900
 gatcctttgt gttctcatgg ttggctctga ctttcagctg tgttgggacc actggctgat
 3960
 cacatcacct ctctgcctca gtttcccat ctgtaaaatg ggagaataat acttgacct
 4020
 ctacctcaca ggggtgttgt gaggattcat ttgtgatttt tttttttttt tttgtacaga
 4080
 gcttttaagc attaaaaaca gctaaatgtg aaaaaaaaaa a
 4121

<210> 1744

<211> 796

<212> PRT

<213> Homo sapiens

<400> 1744

Ile	Thr	Tyr	Asn	Cys	Lys	Glu	Glu	Phe	Gln	Ile	His	Asp	Glu	Leu	Leu
1				5					10					15	
Lys	Ala	His	Tyr	Thr	Leu	Gly	Arg	Leu	Ser	Asp	Asn	Thr	Pro	Glu	His
			20					25					30		
Tyr	Leu	Val	Gln	Gly	Arg	Tyr	Phe	Leu	Val	Arg	Asp	Val	Thr	Glu	Lys
		35					40					45			
Met	Asp	Val	Leu	Gly	Thr	Val	Gly	Ser	Cys	Gly	Ala	Pro	Asn	Phe	Arg

50					55					60							
Gln	Val	Gln	Gly	Gly	Leu	Thr	Val	Phe	Gly	Met	Gly	Gln	Pro	Ser	Leu		
65					70					75					80		
Ser	Gly	Phe	Arg	Arg	Val	Leu	Gln	Lys	Leu	Gln	Lys	Asp	Gly	His	Arg		
			85						90					95			
Glu	Cys	Val	Ile	Phe	Cys	Val	Arg	Glu	Glu	Pro	Val	Leu	Phe	Leu	Arg		
			100					105					110				
Ala	Asp	Glu	Asp	Phe	Val	Ser	Tyr	Thr	Pro	Arg	Asp	Lys	Gln	Asn	Leu		
		115					120					125					
His	Glu	Asn	Leu	Gln	Gly	Leu	Gly	Pro	Gly	Val	Arg	Val	Glu	Ser	Leu		
		130				135					140						
Glu	Leu	Ala	Ile	Arg	Lys	Glu	Ile	His	Asp	Phe	Ala	Gln	Leu	Ser	Glu		
145					150				155						160		
Asn	Thr	Tyr	His	Val	Tyr	His	Asn	Thr	Glu	Asp	Leu	Trp	Gly	Glu	Pro		
			165					170						175			
His	Ala	Val	Ala	Ile	His	Gly	Glu	Asp	Asp	Leu	His	Val	Thr	Glu	Glu		
		180					185						190				
Val	Tyr	Lys	Arg	Pro	Leu	Phe	Leu	Gln	Pro	Thr	Tyr	Arg	Tyr	His	Arg		
		195				200						205					
Leu	Pro	Leu	Pro	Glu	Gln	Gly	Ser	Pro	Leu	Glu	Ala	Gln	Leu	Asp	Ala		
	210				215					220							
Phe	Val	Ser	Val	Leu	Arg	Glu	Thr	Pro	Ser	Leu	Leu	Gln	Leu	Arg	Asp		
225				230					235						240		
Ala	His	Gly	Pro	Pro	Pro	Ala	Leu	Val	Phe	Ser	Cys	Gln	Met	Gly	Val		
			245					250						255			
Gly	Arg	Thr	Asn	Leu	Gly	Met	Val	Leu	Gly	Thr	Leu	Ile	Leu	Leu	His		
		260					265						270				
Arg	Ser	Gly	Thr	Thr	Ser	Gln	Pro	Glu	Ala	Ala	Pro	Thr	Gln	Ala	Lys		
	275					280						285					
Pro	Leu	Pro	Met	Glu	Gln	Phe	Gln	Val	Ile	Gln	Ser	Phe	Leu	Arg	Met		
	290				295					300							
Val	Pro	Gln	Gly	Arg	Arg	Met	Val	Glu	Glu	Val	Asp	Arg	Ala	Ile	Thr		
305				310						315					320		
Ala	Cys	Ala	Glu	Leu	His	Asp	Leu	Lys	Glu	Val	Val	Leu	Glu	Asn	Gln		
			325					330						335			
Lys	Lys	Leu	Glu	Gly	Ile	Arg	Pro	Glu	Ser	Pro	Ala	Gln	Gly	Ser	Gly		
		340						345					350				
Ser	Arg	His	Ser	Val	Trp	Gln	Arg	Ala	Leu	Trp	Ser	Leu	Glu	Arg	Tyr		
	355					360						365					
Phe	Tyr	Leu	Ile	Leu	Phe	Asn	Tyr	Tyr	Leu	His	Glu	Gln	Tyr	Pro	Leu		
	370				375					380							
Ala	Phe	Ala	Leu	Ser	Phe	Ser	Arg	Trp	Leu	Cys	Ala	His	Pro	Glu	Leu		
385				390					395						400		
Tyr	Arg	Leu	Pro	Val	Thr	Leu	Ser	Ser	Ala	Gly	Pro	Val	Ala	Pro	Arg		
			405					410					415				
Asp	Leu	Ile	Ala	Arg	Gly	Ser	Leu	Arg	Glu	Asp	Asp	Leu	Val	Ser	Pro		
		420						425					430				
Asp	Ala	Leu	Ser	Thr	Val	Arg	Glu	Met	Asp	Val	Ala	Asn	Phe	Arg	Arg		
	435					440						445					
Val	Pro	Arg	Met	Pro	Ile	Tyr	Gly	Thr	Ala	Gln	Pro	Ser	Ala	Lys	Ala		
	450				455					460							
Leu	Gly	Ser	Ile	Leu	Ala	Tyr	Leu	Thr	Asp	Ala	Lys	Arg	Arg	Leu	Arg		
465				470					475						480		
Lys	Val	Val	Trp	Val	Ser	Leu	Arg	Glu	Glu	Ala	Val	Leu	Glu	Cys	Asp		

485 490 495
 Gly His Thr Tyr Ser Leu Arg Trp Pro Gly Pro Pro Val Ala Pro Asp
 500 505 510
 Gln Leu Glu Thr Leu Glu Ala Gln Leu Lys Ala His Leu Ser Glu Pro
 515 520 525
 Pro Pro Gly Lys Glu Gly Pro Leu Thr Tyr Arg Phe Gln Thr Cys Leu
 530 535 540
 Thr Met Gln Glu Val Phe Ser Gln His Arg Arg Ala Cys Pro Gly Leu
 545 550 555 560
 Thr Tyr His Arg Ile Pro Met Pro Asp Phe Cys Ala Pro Arg Glu Glu
 565 570 575
 Asp Phe Asp Gln Leu Leu Glu Ala Leu Arg Ala Ala Leu Ser Lys Asp
 580 585 590
 Pro Gly Thr Gly Phe Val Phe Ser Cys Leu Ser Gly Gln Gly Arg Thr
 595 600 605
 Thr Thr Ala Met Val Val Ala Val Leu Ala Phe Trp His Ile Gln Gly
 610 615 620
 Phe Pro Glu Val Gly Glu Glu Glu Leu Val Ser Val Pro Asp Ala Lys
 625 630 635 640
 Phe Thr Lys Gly Glu Phe Gln Val Val Met Lys Val Val Gln Leu Leu
 645 650 655
 Pro Asp Gly His Arg Val Lys Lys Glu Val Asp Ala Ala Leu Asp Thr
 660 665 670
 Val Ser Glu Thr Met Thr Pro Met His Tyr His Leu Arg Glu Ile Ile
 675 680 685
 Ile Cys Thr Tyr Arg Gln Ala Lys Ala Ala Lys Glu Ala Gln Glu Met
 690 695 700
 Arg Arg Leu Gln Leu Arg Ser Leu Gln Tyr Leu Glu Arg Tyr Val Cys
 705 710 715 720
 Leu Ile Leu Phe Asn Ala Tyr Leu His Leu Glu Lys Ala Asp Ser Trp
 725 730 735
 Gln Arg Pro Phe Ser Thr Trp Met Gln Glu Val Ala Ser Lys Ala Gly
 740 745 750
 Ile Tyr Glu Ile Leu Asn Glu Leu Gly Phe Pro Glu Leu Glu Ser Gly
 755 760 765
 Glu Asp Gln Pro Phe Ser Arg Leu Arg Tyr Arg Trp Gln Glu Gln Ser
 770 775 780
 Cys Ser Leu Glu Pro Ser Ala Pro Glu Asp Leu Leu
 785 790 795

<210> 1745

<211> 426

<212> DNA

<213> Homo sapiens

<400> 1745

ntcattgaaaa ttaaaaaatg gcttggtgta gcagcccttg ctacagtcgc aggtttggct
 60
 cttgcagctt gcggaaactc agaaaagaaa gcagacaatg caacaactat caaaatcgca
 120
 actgttaacc gtagcgggttc tgaagaaaaa cgttgggaca aaatccaaga attggttaaa
 180
 aaagacggta tcacttttga atttacggag ttcacaggct actcacaacc aaacaaggca
 240

actgctgatg gcgaagtaga tttgaacgct ttccaacact ataacttctt gaacaactgg
 300
 aacaaagaaa acgggaaaga ccttgtagcg attgcagata cttacatctc tccaatccgt
 360
 ctttactcag gtttgaatgg aagtgacaac aagtacacta aagtagaggc tggagtgtgc
 420
 tcgcga
 426

<210> 1746
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 1746
 Xaa Met Lys Ile Lys Lys Trp Leu Gly Val Ala Ala Leu Ala Thr Val
 1 5 10 15
 Ala Gly Leu Ala Leu Ala Ala Cys Gly Asn Ser Glu Lys Lys Ala Asp
 20 25 30
 Asn Ala Thr Thr Ile Lys Ile Ala Thr Val Asn Arg Ser Gly Ser Glu
 35 40 45
 Glu Lys Arg Trp Asp Lys Ile Gln Glu Leu Val Lys Lys Asp Gly Ile
 50 55 60
 Thr Leu Glu Phe Thr Glu Phe Thr Gly Tyr Ser Gln Pro Asn Lys Ala
 65 70 75 80
 Thr Ala Asp Gly Glu Val Asp Leu Asn Ala Phe Gln His Tyr Asn Phe
 85 90 95
 Leu Asn Asn Trp Asn Lys Glu Asn Gly Lys Asp Leu Val Ala Ile Ala
 100 105 110
 Asp Thr Tyr Ile Ser Pro Ile Arg Leu Tyr Ser Gly Leu Asn Gly Ser
 115 120 125
 Asp Asn Lys Tyr Thr Lys Val Glu Ala Gly Val Cys Ser Arg
 130 135 140

<210> 1747
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 1747
 nnaagctttt gtccacacag ataggaagta atcatgggtca ctcaccgccc agaactgcat
 60
 atcaccgccc ctgaaggcgt gttggaggca ccggcggggt cgctcctcaa ggacggcacg
 120
 tggcacatca tgtaccagta cgaaccacac gcggatgggc acggcctctg gggacatgtc
 180
 acttccccca acttctctcc ctttaactgg acagacggag aagacattct ggttccagag
 240
 ggcgaggaaa ccgacctgtg ggcaggttct gttattagca acgctggaaa agtgacgctg
 300
 ttttttacct ccgtcaaggg cgacnaagac ggaaatccat cgggcagatg tcgccgacgg
 360
 caaagctacg cgt
 373

<210> 1748
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 1748
 Met Val Thr His Arg Pro Glu Leu His Ile Thr Ala Pro Glu Gly Val
 1 5 10 15
 Leu Glu Ala Pro Ala Gly Ser Leu Leu Lys Asp Gly Thr Trp His Ile
 20 25 30
 Met Tyr Gln Tyr Glu Pro His Ala Asp Gly His Gly Leu Trp Gly His
 35 40 45
 Val Thr Ser Pro Asn Phe Ser Pro Phe Asn Trp Thr Asp Gly Glu Asp
 50 55 60
 Ile Leu Val Pro Glu Gly Glu Glu Thr Asp Leu Trp Ala Gly Ser Val
 65 70 75 80
 Ile Ser Asn Ala Gly Lys Val Thr Leu Phe Phe Thr Ser Val Lys Gly
 85 90 95
 Asp Xaa Asp Gly Asn Pro Ser Gly Arg Cys Arg Arg Arg Gln Ser Tyr
 100 105 110
 Ala

<210> 1749
 <211> 853
 <212> DNA
 <213> Homo sapiens

<400> 1749
 cccagcaggc aaagagagag gcctccctgg cttcgagtgt caggggagcc gcgttccttc
 60
 ccagggctgg agcagaggac cacaaggcag cagaaagcgc ggggccagat gagggccagg
 120
 aaggggagga gagtgagggc caagaacgag ccttaaggga gcagtcccaa gctggagcca
 180
 cccagggctg ggtctgggag tcctcagtgt ccacttgctc caggttaggg ggcttgccctt
 240
 gctctctcca gggccagtct ctgtgtgtgg ggactcagcc cgtggccggc agatgccatc
 300
 caggatgtac aaggtgcagc caaggcaggc catgcagggg ccgggcctgt ctgcagctgg
 360
 tggatgcctg tgggcatggc tttctctggg gacccattc ctgtcagtag caaccctggc
 420
 agtgtccgga gcggtcttag acaactttgg tcataggaac tctggaggtg ggttctggtc
 480
 atctgaggtg gctactcaac aggtttgagg cccacagca acagaagtcc aggacccact
 540
 aggttgccctc agaagcccta agactgatga gctggagcgc gcatttgaga gaagccctgc
 600
 acccactgtg tactggcccc gctcaggccg gcctggcaca ccgttgccctg ctggcggctc
 660
 tcatggggaa gcgcctgggc actggggatt gcttgtgggc cactcaactc ttggggcagt
 720

ggccgtaacc ctagtttgcc tgaggccctt atgtcccctt atgttcctgg tactggagct
 780
 tgagctcttg cctggcacgc tgcagctgca cccaccctgc ttgatccac ctgggaggcc
 840
 aggacactga gga
 853

<210> 1750
 <211> 64
 <212> PRT
 <213> Homo sapiens

<400> 1750
 Glu Lys Pro Arg Thr His Cys Val Leu Ala Pro Leu Arg Pro Ala Trp
 1 5 10 15
 His Thr Val Ala Cys Trp Arg Leu Ser Trp Gly Ser Ala Trp Ala Leu
 20 25 30
 Gly Ile Ala Cys Gly Pro Leu Asn Ser Trp Gly Ser Gly Arg Asn Pro
 35 40 45
 Ser Leu Pro Glu Ala Leu Met Ser Pro Tyr Val Pro Gly Thr Gly Ala
 50 55 60

<210> 1751
 <211> 531
 <212> DNA
 <213> Homo sapiens

<400> 1751
 ggccgcatcc cgcattctggg ccgatggcga atgggcaatt tcagtcgcag acagggacat
 60
 gacgatgccg ttgtcgagaa ggccatggcg acgaccgggg tctccgagct tactgatagg
 120
 gcatggtctt ccctgtcagg aggagagagg caacgggtac agctggctcg tgccttggca
 180
 caggagcccc agatcttatt tcttgacgag ccgacaaatc accttgactt gccacaccag
 240
 atcgacctcc tggagcgggt ccgaggactc ggctgacga cggtcaccgt cattcatgac
 300
 ctcgacttgg ctgccgccta cgccgacgac ctcatcgtgc tcgactcggg tcgcatggtt
 360
 gctggcggac cggcgagcac agtgctgacg cctggccttg tccgtgacca ctttgggtgc
 420
 gacggtgagg tttggtcttc ctcgaggcgc ggcttcacct ggaacgggct gcagacatga
 480
 cgacgcgtat cgcagtatcc ctccgatggg acgacgccat tgacttgagc c
 531

<210> 1752
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 1752
 Gly Arg Ile Pro His Leu Gly Arg Trp Arg Met Gly Asn Phe Ser Arg

1	5	10	15
Arg Gln Gly His Asp Asp Ala Val Val Glu Lys Ala Met Ala Thr Thr			
	20	25	30
Gly Val Ser Glu Leu Thr Asp Arg Ala Trp Ser Ser Leu Ser Gly Gly			
	35	40	45
Glu Arg Gln Arg Val Gln Leu Ala Arg Ala Leu Ala Gln Glu Pro Glu			
	50	55	60
Ile Leu Phe Leu Asp Glu Pro Thr Asn His Leu Asp Leu Pro His Gln			
65	70	75	80
Ile Asp Leu Leu Glu Arg Val Arg Gly Leu Gly Leu Thr Thr Val Thr			
	85	90	95
Val Ile His Asp Leu Asp Leu Ala Ala Ala Tyr Ala Asp Asp Leu Ile			
	100	105	110
Val Leu Asp Ser Gly Arg Met Val Ala Gly Gly Pro Ala Ser Thr Val			
	115	120	125
Leu Thr Pro Gly Leu Val Arg Asp His Phe Gly Val Asp Gly Glu Val			
	130	135	140
Trp Ser Ser Ser Arg Arg Gly Phe Thr Trp Asn Gly Leu Gln Thr			
145	150	155	

<210> 1753

<211> 920

<212> DNA

<213> Homo sapiens

<400> 1753

gagacagtgg agaggctggg tcagtccect gcccaggaca ccccggtcct ggggccttgc
60
tgggacccga tggctctggg gactcagggc cgcctgctgc tggacagga ttccaaggac
120
acacagacca ggatcagcca aaagggccgc cgtctgcagc ccccggggac tccctcgcc
180
ccacccaga gaaggccccg gaaacagctg aaccctgcc ggggcaccga gagagtggac
240
cctgggttcg agggggtgac tctgaagttt cagataaagc cggactccag cctgcagatc
300
atccccacgt acagcctgcc ctgcagtagc cgttctcagg aatccccctgc agatgctgtt
360
gggggcntg cagccatccc agagggcacc gagggccact cagcaggcag cgaggccctg
420
gagccccggc gctgtgcttc ctgtcggacc cagaggaccc cgctctggag agacgctgaa
480
gatgggaccc ttctctgcaa cgcctgtggg atcaggtaca agaaatacgg cactcgtctc
540
tccagctgct ggctgggtgcc caggaaaaat gtccagccca agaggctatg tggcagatgt
600
ggagtgtccc tggaccccat tcaggaaggt taaaccagc ttcaccctgc tgagctgctg
660
cttctgcctc cgtttcacca gtgggagaat gggcagaagc agctctccta ggaggattgg
720
ggaaagagcc ggctgcctc ctctctgcca tctccagatt caaggatccc gggggaagac
780
ccaggcctca ggtggcagag cctgctaggg gtcaccagcc ccttctccag tcagccttgg
840

ccgaggccccc ctcaggagac gctctcagga aggatgagca ttgttacagc agggacaata
 900
 aagtacagag atatgccgag
 920

<210> 1754
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 1754
 Glu Thr Val Glu Arg Leu Gly Gln Ser Pro Ala Gln Asp Thr Pro Val
 1 5 10 15
 Leu Gly Pro Cys Trp Asp Pro Met Ala Leu Gly Thr Gln Gly Arg Leu
 20 25 30
 Leu Leu Asp Arg Asp Ser Lys Asp Thr Gln Thr Arg Ile Ser Gln Lys
 35 40 45
 Gly Arg Arg Leu Gln Pro Pro Gly Thr Pro Ser Ala Pro Pro Gln Arg
 50 55 60
 Arg Pro Arg Lys Gln Leu Asn Pro Cys Arg Gly Thr Glu Arg Val Asp
 65 70 75 80
 Pro Gly Phe Glu Gly Val Thr Leu Lys Phe Gln Ile Lys Pro Asp Ser
 85 90 95
 Ser Leu Gln Ile Ile Pro Thr Tyr Ser Leu Pro Cys Ser Ser Arg Ser
 100 105 110
 Gln Glu Ser Pro Ala Asp Ala Val Gly Gly Xaa Ala Ala Ile Pro Glu
 115 120 125
 Gly Thr Glu Gly His Ser Ala Gly Ser Glu Ala Leu Glu Pro Arg Arg
 130 135 140
 Cys Ala Ser Cys Arg Thr Gln Arg Thr Pro Leu Trp Arg Asp Ala Glu
 145 150 155 160
 Asp Gly Thr Leu Leu Cys Asn Ala Cys Gly Ile Arg Tyr Lys Lys Tyr
 165 170 175
 Gly Thr Arg Cys Ser Ser Cys Trp Leu Val Pro Arg Lys Asn Val Gln
 180 185 190
 Pro Lys Arg Leu Cys Gly Arg Cys Gly Val Ser Leu Asp Pro Ile Gln
 195 200 205
 Glu Gly
 210

<210> 1755
 <211> 437
 <212> DNA
 <213> Homo sapiens

<400> 1755
 nttctgcag agtagggaga cagtcttggg cctggatggc cattagtgc tggagtcag
 60
 ggagcaatca gaaatgatca aggagaatcc ttgatacgaa ctgcattcca gtgtcttcag
 120
 ttggttgtga cagattttct accaacaatg ccttgactt gcctgcaa atgtgtgat
 180
 gttgcaggta gctttggcct ccataaccaa gaactcaata ttagtttaac ttcaataggt
 240

ttattgtgga atatttcaga ttattttttc caaagagggg aaactattga aaaagaacta
 300
 aataaggaag aggcagcaca gcaaaagcag gcagaagaga aaggagtgtg tttaaactcg
 360
 ccattccacc ctgcaccgcc atttgattgc ttgtgggttat gtctttatgc aaaattgggt
 420
 gaactatgtg tggatcc
 437

<210> 1756

<211> 126

<212> PRT

<213> Homo sapiens

<400> 1756

Met	Gly	Ala	Ile	Arg	Asn	Asp	Gln	Gly	Glu	Ser	Leu	Ile	Arg	Thr	Ala
1			5					10					15		
Phe	Gln	Cys	Leu	Gln	Leu	Val	Val	Thr	Asp	Phe	Leu	Pro	Thr	Met	Pro
			20					25					30		
Cys	Thr	Cys	Leu	Gln	Ile	Val	Val	Asp	Val	Ala	Gly	Ser	Phe	Gly	Leu
			35				40					45			
His	Asn	Gln	Glu	Leu	Asn	Ile	Ser	Leu	Thr	Ser	Ile	Gly	Leu	Leu	Trp
			50			55					60				
Asn	Ile	Ser	Asp	Tyr	Phe	Phe	Gln	Arg	Gly	Glu	Thr	Ile	Glu	Lys	Glu
65					70					75				80	
Leu	Asn	Lys	Glu	Glu	Ala	Ala	Gln	Gln	Lys	Gln	Ala	Glu	Glu	Lys	Gly
				85					90					95	
Val	Val	Leu	Asn	Arg	Pro	Phe	His	Pro	Ala	Pro	Pro	Phe	Asp	Cys	Leu
			100					105					110		
Trp	Leu	Cys	Leu	Tyr	Ala	Lys	Leu	Gly	Glu	Leu	Cys	Val	Asp		
			115				120					125			

<210> 1757

<211> 1297

<212> DNA

<213> Homo sapiens

<400> 1757

nggatccgac ggaaatagaa ttgaaggcat tctaaaatgg ctaaccgtac agtgaaggat
 60
 gcgcacagca tccatggcac caaccctcaa tatctggtgg agaagatcat tcgaacgcga
 120
 atctatgagt ccaagtactg gaaagaggag tgctttggac ttacagctga acttgtagtc
 180
 gataaagcca tggagttaag gtttgtgggt ggcgtctatg gtggcaacat aaaaccaaca
 240
 ccctttctgt gttaacctt gaagatgctt caaattcaac ccgagaagga tatcattgta
 300
 gagtttatca aaaatgaaga tttcaagtat gtccgcatgc tgggggcact ttacatgagg
 360
 ctgacaggca ctgcaattga ttgctacaag tacttggaac ctttgtacaa tgactatcga
 420
 aaaatcaaga gccagaaccg aaatggggag tttgaattga tgcattgtga tgagtttatt
 480

gatgaactat tgcacagtga gagagtctgt gatatcattc tgccccgact acagaaaacgc
 540
 tatgtattag aggaagctga gcaactggag cctcgagtta gtgctctgga agaggacatg
 600
 gatgatgtgg agtccagtga agaggaagaa gaggaggatg agaagttgga aagagtgcc
 660
 tcacctgac accgccggag aagctaccga gacttggaca agccccgtcg ctctcccaca
 720
 ctgcgtaca ggaggagtag gagccggtct cccagaaggc ggagtcgac tcccaaaagg
 780
 agaagcccct cccctcgccg agaaaggcat cggagcaaga gtccaagacg tcaccgcagc
 840
 aggtcccag atcggcggca cagatcccgt tccaagtccc caggtcatca ccgtagtcac
 900
 agacacagga gccactcaaa gtctcccga aggtctaaga agagccacaa gaagagccgg
 960
 agagggaaatg agtaatggac tcagtttggg tttagtccac atggcctcct gtggatataa
 1020
 ggatatctgt atgtggaagg attaagatct cccccaggca gctataagaa tattttagtt
 1080
 tttttcttat caagtttctc aacctttatt tttaatgaag gaggtgctga gttttgtatc
 1140
 tttttaatca taatcaacat cagtttttga cccaactaac cttgactgta ttcaaactta
 1200
 tgagagtata aaggatctgg aggttgggga tatgactgac aaggaaaaggc tgtggccacc
 1260
 tgatgaccct ttcccttttt attaaaccgg acacacc
 1297

<210> 1758

<211> 312

<212> PRT

<213> Homo sapiens

<400> 1758

Met Ala Asn Arg Thr Val Lys Asp Ala His Ser Ile His Gly Thr Asn
 1 5 10 15
 Pro Gln Tyr Leu Val Glu Lys Ile Ile Arg Thr Arg Ile Tyr Glu Ser
 20 25 30
 Lys Tyr Trp Lys Glu Glu Cys Phe Gly Leu Thr Ala Glu Leu Val Val
 35 40 45
 Asp Lys Ala Met Glu Leu Arg Phe Val Gly Gly Val Tyr Gly Gly Asn
 50 55 60
 Ile Lys Pro Thr Pro Phe Leu Cys Leu Thr Leu Lys Met Leu Gln Ile
 65 70 75 80
 Gln Pro Glu Lys Asp Ile Ile Val Glu Phe Ile Lys Asn Glu Asp Phe
 85 90 95
 Lys Tyr Val Arg Met Leu Gly Ala Leu Tyr Met Arg Leu Thr Gly Thr
 100 105 110
 Ala Ile Asp Cys Tyr Lys Tyr Leu Glu Pro Leu Tyr Asn Asp Tyr Arg
 115 120 125
 Lys Ile Lys Ser Gln Asn Arg Asn Gly Glu Phe Glu Leu Met His Val
 130 135 140
 Asp Glu Phe Ile Asp Glu Leu Leu His Ser Glu Arg Val Cys Asp Ile

145		150		155		160									
Ile	Leu	Pro	Arg	Leu	Gln	Lys	Arg	Tyr	Val	Leu	Glu	Glu	Ala	Glu	Gln
		165		170		175									
Leu	Glu	Pro	Arg	Val	Ser	Ala	Leu	Glu	Glu	Asp	Met	Asp	Asp	Val	Glu
		180		185		190									
Ser	Ser	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Lys	Leu	Glu	Arg	Val	Pro
		195		200		205									
Ser	Pro	Asp	His	Arg	Arg	Arg	Ser	Tyr	Arg	Asp	Leu	Asp	Lys	Pro	Arg
		210		215		220									
Arg	Ser	Pro	Thr	Leu	Arg	Tyr	Arg	Arg	Ser	Arg	Ser	Arg	Ser	Pro	Arg
		225		230		235									
Arg	Arg	Ser	Arg	Ser	Pro	Lys	Arg	Arg	Ser	Pro	Ser	Pro	Arg	Arg	Glu
		245		250		255									
Arg	His	Arg	Ser	Lys	Ser	Pro	Arg	Arg	His	Arg	Ser	Arg	Ser	Arg	Asp
		260		265		270									
Arg	Arg	His	Arg	Ser	Arg	Ser	Lys	Ser	Pro	Gly	His	His	Arg	Ser	His
		275		280		285									
Arg	His	Arg	Ser	His	Ser	Lys	Ser	Pro	Glu	Arg	Ser	Lys	Lys	Ser	His
		290		295		300									
Lys	Lys	Ser	Arg	Arg	Gly	Asn	Glu								
		305		310											

<210> 1759

<211> 324

<212> DNA

<213> Homo sapiens

<400> 1759

```

aattccatag tcctcatggg caagagttac acagcgtgga ggaccaactc ccaggcactc
60
ggcctgggca gacacaatta ttgtcggaat ccagatgggtg atgccagacc ttggtgccat
120
gtgatgaagg accgaaagct gacgtgggaa tactgtgaca tgtcccatg ctccacctgt
180
ggcctgaggc agtgcaaacg gcctcagttt agaactaaag gaggactcta cacagacatc
240
acctcacacc cttggcaggc tgccatcttt gtcagcaaca agaggtctcc tggagagaga
300
ttcctttgtg gaggggtgct gatc
324

```

<210> 1760

<211> 108

<212> PRT

<213> Homo sapiens

<400> 1760

Asn	Ser	Ile	Val	Leu	Met	Gly	Lys	Ser	Tyr	Thr	Ala	Trp	Arg	Thr	Asn
1				5				10					15		
Ser	Gln	Ala	Leu	Gly	Leu	Gly	Arg	His	Asn	Tyr	Cys	Arg	Asn	Pro	Asp
		20				25						30			
Gly	Asp	Ala	Arg	Pro	Trp	Cys	His	Val	Met	Lys	Asp	Arg	Lys	Leu	Thr
		35				40						45			
Trp	Glu	Tyr	Cys	Asp	Met	Ser	Pro	Cys	Ser	Thr	Cys	Gly	Leu	Arg	Gln

50		55		60
Cys Lys Arg Pro Gln Phe Arg Thr Lys Gly Gly Leu Tyr Thr Asp Ile				
65		70		75
Thr Ser His Pro Trp Gln Ala Ala Ile Phe Val Ser Asn Lys Arg Ser				80
	85		90	95
Pro Gly Glu Arg Phe Leu Cys Gly Gly Val Leu Ile				
100		105		

<210> 1761
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 1761
 ngcgatctcg gctcactaca acctcgggtga cagagcgaga ctctatccca aaaaaataaa
 60
 aataaaaaatc aactggagaa ggaaatgggg ttggggagca tcctctgaat atataaaggc
 120
 agccattcat tgtaggagag gaggtagaag gaaatgctgt ttgtcgatgg ttcttttcca
 180
 gagaggaaga gaggagaaag gaagagcggg gagcaggtgg ggagcccgca gtaagacccc
 240
 acagtggggc caggtgggtct tgcaccctgt attcccactt tggctggggc agcccagagt
 300
 ccaggccagc aggtaatgcc ccagccatgc ccaactcggtc ctattggatc c
 351

<210> 1762
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1762
Met Ala Gly Ala Leu Pro Ala Gly Leu Asp Ser Gly Leu Pro Gln Pro
1 5 10 15
Lys Trp Glu Tyr Arg Val Gln Asp His Leu Ala Pro Leu Trp Gly Leu
20 25 30
Thr Ala Gly Ser Pro Pro Ala Pro Arg Ser Ser Phe Leu Leu Ser Ser
35 40 45
Ser Leu Glu Lys Asn His Arg Gln Thr Ala Phe Pro Ser Thr Ser Ser
50 55 60
Pro Thr Met Asn Gly Cys Leu Tyr Ile Phe Arg Gly Cys Ser Pro Thr
65 70 75 80
Pro Phe Pro Ser Pro Val Asp Phe Tyr Phe Phe Gly Ile Glu
85 90 95
Ser Arg Ser Val Thr Glu Val Val Val Ser Arg Asp Arg
100 105

<210> 1763
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 1763

gcgcgccggg ggcgcgatgt ggagcgggca cttaccggtt tcatggccaa gacaggcgag
 60
 actcagagtc ttttcaaaga tgacgtcagc acatttccat tgattgctgc cagacctttc
 120
 accatccccct acctgacagc tcttcttccg tctgaactgg agatgcaaca aatggaagag
 180
 acagattcct cggagcagga tgaacagaca gacacagaga accttgctct tcatatcagc
 240
 atggaggatt ctggagccga gaaagagaac acctctgtcc tgcagcagaa cccctccttg
 300
 tcgggtagcc ggaatgggga ggagaacatc atcgataacc cttatctgcg accggt
 356

<210> 1764

<211> 118

<212> PRT

<213> Homo sapiens

<400> 1764

Ala	Arg	Arg	Gly	Arg	Asp	Val	Glu	Arg	Ala	Leu	Thr	Arg	Phe	Met	Ala
1				5					10					15	
Lys	Thr	Gly	Glu	Thr	Gln	Ser	Leu	Phe	Lys	Asp	Asp	Val	Ser	Thr	Phe
		20						25					30		
Pro	Leu	Ile	Ala	Ala	Arg	Pro	Phe	Thr	Ile	Pro	Tyr	Leu	Thr	Ala	Leu
	35						40					45			
Leu	Pro	Ser	Glu	Leu	Glu	Met	Gln	Gln	Met	Glu	Glu	Thr	Asp	Ser	Ser
	50					55					60				
Glu	Gln	Asp	Glu	Gln	Thr	Asp	Thr	Glu	Asn	Leu	Ala	Leu	His	Ile	Ser
65					70				75					80	
Met	Glu	Asp	Ser	Gly	Ala	Glu	Lys	Glu	Asn	Thr	Ser	Val	Leu	Gln	Gln
				85					90				95		
Asn	Pro	Ser	Leu	Ser	Gly	Ser	Arg	Asn	Gly	Glu	Glu	Asn	Ile	Ile	Asp
			100					105					110		
Asn	Pro	Tyr	Leu	Arg	Pro										
			115												

<210> 1765

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1765

cggccgcatt cttcgtgact ggcgtcccgc cgccgggtgca aaagtgtcag gaaataccag
 60
 tcatgactat gtttagccgc acctctctgc agtatgcat cgttctggca gcgctgggag
 120
 gtgccggtct ggcgctctgg gccatgtcga gtgcgacgga ggccaatcag gcggaaattg
 180
 cccaggccag gccaggcatt attgcggcgg cgcgcggtgt cgtggatgtc gagggcggcc
 240
 tgctgcggct ctccaccag cgcgacgggg tgattcagga tgtgccggtg aaggaaggac
 300
 agcgggtcaa agccggcgat atcctcgccg cgctcgacaa tcgccgcgaa ctgatcg
 357

<210> 1766
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 1766
 Met Thr Met Phe Ser Arg Thr Ser Leu Gln Tyr Ala Ile Val Leu Ala
 1 5 10 15
 Ala Leu Gly Gly Ala Gly Leu Ala Leu Trp Ala Met Ser Ser Ala Thr
 20 25 30
 Glu Ala Asn Gln Ala Glu Ile Ala Gln Ala Arg Pro Gly Ile Ile Ala
 35 40 45
 Ala Ala Arg Gly Val Val Asp Val Glu Gly Gly Leu Leu Arg Leu Ser
 50 55 60
 Thr Gln Arg Asp Gly Val Ile Gln Asp Val Pro Val Lys Glu Gly Gln
 65 70 75 80
 Arg Val Lys Ala Gly Asp Ile Leu Ala Ala Leu Asp Asn Arg Arg Glu
 85 90 95
 Leu Ile

<210> 1767
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 1767
 nnnccgcccac ggccgccatg acgcaccgca ttgacgtgaa ccagggcgac gatgcccaacc
 60
 ccggccaaca cgccaggctg cttgacgccg ccagccaacc cgacgaacgc cccaccaaga
 120
 acgagcccga gccatccccg gccaatcaac gccagacgta tggccacaac gagtgcgacg
 180
 aggacaaaac ccacctggag tccgtcgttg tgcattgccc ccaccacgct caacgtcgtc
 240
 aatggacagc acaccgccag ccagaggggca tgatccggat cggttccggc gtagcgn
 297

<210> 1768
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 1768
 Met Pro Thr Pro Ala Asn Thr Pro Glv Cys Leu Thr Pro Pro Ala Asn
 1 5 10 15
 Pro Thr Asn Ala Pro Pro Arg Thr Ser Pro Ser His Pro Arg Pro Ile
 20 25 30
 Asn Ala Arg Arg Met Ala Thr Thr Ser Ala Thr Arg Asp Lys Pro Thr
 35 40 45
 Trp Ser Pro Ser Leu Cys Met Pro Pro Thr Thr Leu Asn Val Val Asn
 50 55 60
 Gly Gln His Thr Ala Ser Gln Arg Ala

65

70

<210> 1769
 <211> 474
 <212> DNA
 <213> Homo sapiens

<400> 1769
 caccatgctg gctcggttcg acgcattcgg gtgggtgagt ctgttctcgt caccgacggg
 60
 caggggtcatg ccgttcgtgg ccctgccatt gaggtgacga aagggtcagt tagcgtcgag
 120
 accgttgaga tcctccatac tcccgcgacc acgcatcgat gggtcgccgt ccaggcattg
 180
 ccgaagtccg atagagctga gctggcggtg gcgaccctca ccgagatggg agttcacgaa
 240
 atcctcgcct ggcaggctga tcggagcatc gtgcgatgga agggcgacaa gcaagccaag
 300
 ggcgtcgcga ggtggcaagc ggctgcccgt gaggccacca aacagtctcg acgttttctt
 360
 gtgccacagg tagaactagc gcaaaccctg gaagttgtta agcggatttg caatgcccag
 420
 gccgcctacg ttttgacga gtcggccagt gaaccgctgg tgcatacagga gctc
 474

<210> 1770
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 1770
 His His Ala Gly Ser Val Arg Arg Ile Arg Val Gly Glu Ser Val Leu
 1 5 10 15
 Val Thr Asp Gly Gln Gly His Ala Val Arg Gly Pro Ala Ile Glu Val
 20 25 30
 Thr Lys Gly Ser Val Ser Val Glu Thr Val Glu Ile Leu His Thr Pro
 35 40 45
 Ala Thr Thr His Arg Trp Val Ala Val Gln Ala Leu Pro Lys Ser Asp
 50 55 60
 Arg Ala Glu Leu Ala Val Ala Thr Leu Thr Glu Met Gly Val His Glu
 65 70 75 80
 Ile Leu Ala Trp Gln Ala Asp Arg Ser Ile Val Arg Trp Lys Gly Asp
 85 90 95
 Lys Gln Ala Lys Gly Val Ala Arg Trp Gln Ala Ala Ala Arg Glu Ala
 100 105 110
 Thr Lys Gln Ser Arg Arg Phe Leu Val Pro Gln Val Glu Leu Ala Gln
 115 120 125
 Thr Arg Glu Val Val Lys Arg Ile Cys Asn Ala Gln Ala Ala Tyr Val
 130 135 140
 Leu His Glu Ser Ala Ser Glu Pro Leu Val His Gln Glu Leu
 145 150 155

<210> 1771
 <211> 287

<212> DNA

<213> Homo sapiens

<400> 1771

acgcgtgatg ggtaattcta atacatgcaa agaattatct ctgcaagtat actcagatat
 60
 taataacagc ggggtgctgca gaggaagaag cctgggagaa tggaagtcag ggaaggagag
 120
 caacaggctt ctactctgt gccatgagca tgtgctagcc atggagacac tctgcatgtt
 180
 acctagaact gctgattcat tgctctggaa ttattcagct attcaagacc cagtgaata
 240
 cagcaagcag ctttcattca tacacacaca tgtgcatcca tgtgcac
 287

<210> 1772

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1772

Met	Gly	Asn	Ser	Asn	Thr	Cys	Lys	Glu	Leu	Ser	Leu	Gln	Val	Tyr	Ser
1				5				10				15			
Asp	Ile	Asn	Asn	Ser	Gly	Cys	Arg	Arg	Gly	Arg	Ser	Leu	Gly	Glu	Trp
		20					25					30			
Lys	Ser	Gly	Lys	Glu	Ser	Asn	Arg	Leu	Leu	Thr	Leu	Cys	His	Glu	His
		35				40					45				
Val	Leu	Ala	Met	Glu	Thr	Leu	Cys	Met	Leu	Pro	Arg	Thr	Ala	Asp	Ser
	50					55				60					
Leu	Leu	Trp	Asn	Tyr	Ser	Ala	Ile	Gln	Asp	Pro	Val	Lys	Tyr	Ser	Lys
65			70					75							80
Gln	Leu	Ser	Phe	Ile	His	Thr	His	Val	His	Pro	Cys	Ala			
			85					90							

<210> 1773

<211> 393

<212> DNA

<213> Homo sapiens

<400> 1773

accggtgagt tctacgtccc ggttaaccac ctcgagggtg aacaggcgca cctcgacgtc
 60
 ttcgattctc cgcttaacga gtacgcagcg atgggatttg agtacggcta ctctgttgcc
 120
 cgtccggatt ctctggtatt gtgggaagcc caattcggcg atttcaccaa cggtgcccag
 180
 acgatcatcg atgagttcat cgctcggct ggctccaagt ggggtcagaa gtcgggagtc
 240
 gtgctgctgc tgccgcacgg ttacgaaggt caggggctg atcactcgtc ggcccgtctg
 300
 gagcgcttcc tcaatctatg cagtgaagac gctttggccg tctgccagcc ctcgaccccg
 360
 gcaagctaca gccatttatt gcgtcagcac gcg
 393

<210> 1774
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 1774
 Thr Gly Glu Phe Tyr Val Pro Val Asn His Leu Gly Gly Glu Gln Ala
 1 5 10 15
 His Leu Asp Val Phe Asp Ser Pro Leu Asn Glu Tyr Ala Ala Met Gly
 20 25 30
 Phe Glu Tyr Gly Tyr Ser Val Ala Arg Pro Asp Ser Leu Val Leu Trp
 35 40 45
 Glu Ala Gln Phe Gly Asp Phe Thr Asn Gly Ala Gln Thr Ile Ile Asp
 50 55 60
 Glu Phe Ile Ala Ser Ala Gly Ser Lys Trp Gly Gln Lys Ser Gly Val
 65 70 75 80
 Val Leu Leu Leu Pro His Gly Tyr Glu Gly Gln Gly Pro Asp His Ser
 85 90 95
 Ser Ala Arg Leu Glu Arg Phe Leu Asn Leu Cys Ser Glu Asp Ala Leu
 100 105 110
 Ala Val Cys Gln Pro Ser Thr Pro Ala Ser Tyr Ser His Leu Leu Arg
 115 120 125
 Gln His Ala
 130

<210> 1775
 <211> 369
 <212> DNA
 <213> Homo sapiens

<400> 1775
 nncctccgag cagctctccg gggcagaccc cagctgcaag ccacagcccg gccctggtaa
 60
 cgggagggca tcgctagga ggggtggggc ggcccggctt cgatgcagcc atgtgggagg
 120
 gccactctca gagaccccc gccttcttg ccacccccac cccagagggg aagctggagc
 180
 tgggaggctg cagaccagg ccaaggtgtg gccagggctg gctttcttg gaggtttga
 240
 gcacctgct tcctggccac ccagctctgg ggctgctgtc aactcttgat ttgtagacat
 300
 cactccagcc tctggcctgt caccctgaac ctccccatg tctgtgtctt ttctcactgg
 360
 aacaccggt
 369

<210> 1776
 <211> 59
 <212> PRT
 <213> Homo sapiens

<400> 1776
 Arg Glu Gly Ile Ala Arg Glu Gly Trp Gly Gly Pro Ala Ser Met Gln


```

      1             5             10             15
Pro Cys Gly Arg Ala Thr Leu Arg Asp Pro Pro Pro Ser Leu Pro Pro
      20             25             30
Pro Pro Gln Arg Gly Ser Trp Ser Trp Glu Ala Ala Asp Pro Gly Gln
      35             40             45
Gly Val Ala Arg Ala Gly Phe Leu Gly Arg Leu
      50             55

```

<210> 1777

<211> 370

<212> DNA

<213> Homo sapiens

<400> 1777

```

agcttcttat cactatcctt tagtgctttt tggctctacct tagcggtaat gctccatcaa
60
gaatatgggtt ttggtagtgc aactgcggga ttttttggcc tcgctgggtgc cgccggagct
120
ttagcagcac cactgtccgg taaactaaca gataaacaag gaccgacacg ggtcacgcag
180
ctgggtgctg ccttagttgt cgtctctttc gcactctatgt tgttattgcc ttacttcagt
240
atcagtaccc aagttataat gattattggt gctaccatag tgtttgactt tgggtgttcag
300
gcggcactta ttgctcatca aaccttagtg tataacattg actctaccgc tcgtggacgc
360
cttaacgcgt
370

```

<210> 1778

<211> 123

<212> PRT

<213> Homo sapiens

<400> 1778

```

Ser Phe Leu Ser Leu Ser Phe Ser Ala Phe Trp Ser Thr Leu Ala Val
      1             5             10             15
Met Leu His Gln Glu Tyr Gly Phe Gly Ser Ala Thr Ala Gly Phe Phe
      20             25             30
Gly Leu Ala Gly Ala Ala Gly Ala Leu Ala Ala Pro Leu Ser Gly Lys
      35             40             45
Leu Thr Asp Lys Gln Gly Pro Thr Arg Val Thr Gln Leu Gly Ala Ala
      50             55             60
Leu Val Val Val Ser Phe Ala Ser Met Leu Leu Leu Pro Tyr Phe Ser
      65             70             75             80
Ile Ser Thr Gln Val Ile Met Ile Ile Val Ala Thr Ile Val Phe Asp
      85             90             95
Phe Gly Val Gln Ala Ala Leu Ile Ala His Gln Thr Leu Val Tyr Asn
      100            105            110
Ile Asp Ser Thr Ala Arg Gly Arg Leu Asn Ala
      115            120

```

<210> 1779

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1779

ccatgtgtgt gtatatgtctc gtgtgtgatg gtatgtatat gtgtatatgt gnntatatgt
60
atacacgtgt gttatgggtgt gtatatatgt atatacgtgt gtgtatatat atgtatatgg
120
gtatgtgtgt gcatgtgcgt atgggtgtgt atatgtgtat atatgtaggt gtgtatatct
180
gggaatatat ggggtgtgtat atgtgtgtat aggtttttat atgtggggaa atatttaaac
240
ctgtgtatat tggaatgtgt gtgtatatgt gtgtatatat ggnggtgtgt atgtacatgt
300
atgtgtgtat atatgtgtgt atatacgtag gtgtgcatat gtgtg
345

<210> 1780

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1780

Pro	Cys	Val	Cys	Ile	Cys	Ser	Cys	Val	Met	Val	Cys	Ile	Cys	Val	Tyr
1			5					10				15			
Val	Xaa	Ile	Cys	Ile	His	Val	Cys	Tyr	Gly	Val	Tyr	Ile	Cys	Ile	Tyr
		20					25				30				
Val	Cys	Val	Tyr	Ile	Cys	Ile	Trp	Val	Cys	Val	Cys	Met	Cys	Val	Trp
		35				40					45				
Val	Cys	Ile	Cys	Val	Tyr	Met									
	50					55									

<210> 1781

<211> 349

<212> DNA

<213> Homo sapiens

<400> 1781

nacgcgtcat gctaaatttt gccctttatg gcaacatttt cgtcagaaca agcggaagag
60
aagctactat ccaagtttca tacgccggtt aaaagaaaac atgatgatac gagatcatct
120
gatgtgaaca caacgcaaac tggttcaagc gccacgcca ttacacctgt acccttactg
180
cccagtgcac aagagcccag ttatctttgc cagtgggtgcg ctccccagac acgaaagcac
240
aagacatggg aggggtgatgc tattcttata ttgcatggaa ataaaactac ttgttcgcta
300
cgatccgcac atgatggcag catgctagtg acgaatgctg ccttccgga
349

<210> 1782

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1782

```

Met Ala Thr Phe Ser Ser Glu Gln Ala Glu Glu Lys Leu Leu Ser Lys
 1           5           10           15
Phe His Thr Pro Val Lys Arg Lys His Asp Asp Thr Arg Ser Ser Asp
          20           25           30
Val Asn Thr Thr Gln Thr Gly Ser Ser Ala Thr Pro Ile Thr Pro Val
          35           40           45
Pro Leu Leu Pro Ser Ala Gln Glu Pro Ser Tyr Leu Cys Gln Trp Cys
          50           55           60
Ala Pro Gln Thr Arg Lys His Lys Thr Trp Glu Gly Asp Ala Ile Leu
65           70           75           80
Ile Leu His Gly Asn Lys Thr Thr Cys Ser Leu Arg Ser Ala His Asp
          85           90           95
Gly Ser Met Leu Val Thr Asn Ala Ala Phe Arg
          100          105

```

<210> 1783

<211> 1829

<212> DNA

<213> Homo sapiens

<400> 1783

```

gtgcacgact tcgacgccag cctctcgggc atcgggcagg aactgggcgc cggcgcttac
60
agcatgagtg atgtcttggc attgcccatt ttcaagcagg aagattccag ccttccattg
120
gatgggtgaaa cagagcaccc accctttcag tatgtgatgt gtgctgcaac gtcaccagca
180
gtaaaactgc atgatgaaac gcttacttat ttgaaccaag gtcagtcata tgaaattcgg
240
atgctggata atcggaaaat ggggtgatatg cctgagatca atggaaaatt agtaaagagc
300
atcataaggg ttgtattcca tgacagacgg ctacaatata cagagcatca gcaacttgaa
360
ggatggaagt ggaatcgccc aggagacaga cttcttgatt tagatattcc aatgtctgtg
420
ggaataattg acacaaggac gaatccaggc cagttaaatt cggttgaatt tctgtgggac
480
ccagcaaac gcacctctgc ttctattcag gtacactgca tcagcacaga atttactcca
540
cggaagcacg gaggtgaaaa gggagtgcgc tttaggatcc aggttgacac ctttaagcag
600
aatgaaaatg gagaatacac agatcatcta cactcagcta gctgccaaat caaagttttt
660
aagcctaaag gtgcagacag gaaacaaaaa actgaccgag agaagatgga gaagagaaca
720
gctcatgaaa aagaaaagta tcagccgtcc tatgatacca caatcctcac agagatgagg
780
cttgagccta taattgaaga tgcagttgaa catgagcaga aanaagtcca gcaagcggac
840
tttgccgcag actacggtga ttctctggca aagcgaggca gttgttctcc gtggcccgat
900

```


gccccacag cctatgtgaa taacagccct tccccagcgc ccactttcac ctccccacag
 960
 cagagcactt gcagtgtccc agacagcaat tcttcttccc caaatcatca gggagatgga
 1020
 gcttcacaga cctctggtga acaaattcag ccttcagcta cgatccagga aacacagcaa
 1080
 tggctgctca aaaacagatt ctcttcctac acaagactgt tctctaattt ttcaggtgcc
 1140
 gacttattaa aactgacaaa ggaggattta gttcaaattt gtggtgcagc cgatggaatt
 1200
 cggtctata attcactgaa gtcaaggctc gtttagacccc gtttaaccat ctatgtctgc
 1260
 cgggagcagc caagcagcac agtgctgcaa gggcagcagc aagctgcaag cagtgcgaagc
 1320
 gagaatggca gtggggcacc ctatgtttat catgcaatct acttgggaaga aatgattgcc
 1380
 tcagaagttg ctcgaaaact tgcgctggtg tttaatatcc ctctccacca aattaatcag
 1440
 gtttacagac aggggtccac cgggtattcac attcttggtta gtgatcaggt aaatcaaadc
 1500
 atttggtttt ccttttcaga ctggtattta cttttataca tgtaattgta gaactgtaga
 1560
 aaaattctgt gacctctttt gaaaatactt atgagaatca ttttcagaga gttgggaatc
 1620
 actttggaag aacttataac caagagtttc aggcaccta gtgataatat ggaatacaag
 1680
 ccaaggaaaa ctggcttagc ctccccccag cccttttagga tgcagccaat cactggggca
 1740
 ctctagggat agtggcaggc tttggccctt tttatgaggt gagtcactgg atgtgttttc
 1800
 cttttgtcta ttatttgatg actaattta
 1829

<210> 1784

<211> 514

<212> PRT

<213> Homo sapiens

<400> 1784

Val	His	Asp	Phe	Asp	Ala	Ser	Leu	Ser	Gly	Ile	Gly	Gln	Glu	Leu	Gly
1				5					10					15	
Ala	Gly	Ala	Tyr	Ser	Met	Ser	Asp	Val	Leu	Ala	Leu	Pro	Ile	Phe	Lys
			20					25					30		
Gln	Glu	Asp	Ser	Ser	Leu	Pro	Leu	Asp	Gly	Glu	Thr	Glu	His	Pro	Pro
		35					40					45			
Phe	Gln	Tyr	Val	Met	Cys	Ala	Ala	Thr	Ser	Pro	Ala	Val	Lys	Leu	His
	50					55				60					
Asp	Glu	Thr	Leu	Thr	Tyr	Leu	Asn	Gln	Gly	Gln	Ser	Tyr	Glu	Ile	Arg
65					70				75				80		
Met	Leu	Asp	Asn	Arg	Lys	Met	Gly	Asp	Met	Pro	Glu	Ile	Asn	Gly	Lys
			85					90					95		
Leu	Val	Lys	Ser	Ile	Ile	Arg	Val	Val	Phe	His	Asp	Arg	Arg	Leu	Gln
		100					105					110			
Tyr	Thr	Glu	His	Gln	Gln	Leu	Glu	Gly	Trp	Lys	Trp	Asn	Arg	Pro	Gly

115 120 125
 Asp Arg Leu Leu Asp Leu Asp Ile Pro Met Ser Val Gly Ile Ile Asp
 130 135 140
 Thr Arg Thr Asn Pro Gly Gln Leu Asn Ala Val Glu Phe Leu Trp Asp
 145 150 155 160
 Pro Ala Lys Arg Thr Ser Ala Phe Ile Gln Val His Cys Ile Ser Thr
 165 170 175
 Glu Phe Thr Pro Arg Lys His Gly Gly Glu Lys Gly Val Pro Phe Arg
 180 185 190
 Ile Gln Val Asp Thr Phe Lys Gln Asn Glu Asn Gly Glu Tyr Thr Asp
 195 200 205
 His Leu His Ser Ala Ser Cys Gln Ile Lys Val Phe Lys Pro Lys Gly
 210 215 220
 Ala Asp Arg Lys Gln Lys Thr Asp Arg Glu Lys Met Glu Lys Arg Thr
 225 230 235 240
 Ala His Glu Lys Glu Lys Tyr Gln Pro Ser Tyr Asp Thr Thr Ile Leu
 245 250 255
 Thr Glu Met Arg Leu Glu Pro Ile Ile Glu Asp Ala Val Glu His Glu
 260 265 270
 Gln Lys Xaa Val Gln Gln Ala Asp Phe Ala Ala Asp Tyr Gly Asp Ser
 275 280 285
 Leu Ala Lys Arg Gly Ser Cys Ser Pro Trp Pro Asp Ala Pro Thr Ala
 290 295 300
 Tyr Val Asn Asn Ser Pro Ser Pro Ala Pro Thr Phe Thr Ser Pro Gln
 305 310 315 320
 Gln Ser Thr Cys Ser Val Pro Asp Ser Asn Ser Ser Ser Pro Asn His
 325 330 335
 Gln Gly Asp Gly Ala Ser Gln Thr Ser Gly Glu Gln Ile Gln Pro Ser
 340 345 350
 Ala Thr Ile Gln Glu Thr Gln Gln Trp Leu Leu Lys Asn Arg Phe Ser
 355 360 365
 Ser Tyr Thr Arg Leu Phe Ser Asn Phe Ser Gly Ala Asp Leu Leu Lys
 370 375 380
 Leu Thr Lys Glu Asp Leu Val Gln Ile Cys Gly Ala Ala Asp Gly Ile
 385 390 395 400
 Arg Leu Tyr Asn Ser Leu Lys Ser Arg Ser Val Arg Pro Arg Leu Thr
 405 410 415
 Ile Tyr Val Cys Arg Glu Gln Pro Ser Ser Thr Val Leu Gln Gly Gln
 420 425 430
 Gln Gln Ala Ala Ser Ser Ala Ser Glu Asn Gly Ser Gly Ala Pro Tyr
 435 440 445
 Val Tyr His Ala Ile Tyr Leu Glu Glu Met Ile Ala Ser Glu Val Ala
 450 455 460
 Arg Lys Leu Ala Leu Val Phe Asn Ile Pro Leu His Gln Ile Asn Gln
 465 470 475 480
 Val Tyr Arg Gln Gly Pro Thr Gly Ile His Ile Leu Val Ser Asp Gln
 485 490 495
 Val Asn Gln Ile Ile Cys Phe Ser Phe Ser Asp Trp Tyr Leu Leu Leu
 500 505 510
 Tyr Met

<210> 1785

<211> 381

<212> DNA

<213> Homo sapiens

<400> 1785

atcacggacg cagaggagaa agggctgatt actccaggcg tgagtgttct gattgaacca
60
actagcggca acacaggcat tggactggcc ttatggctg ctgccaaggg ctacaaactt
120
acactcacia tgectgcctc catgagcatg gagaggagga tcatattgaa ggcttttggg
180
gctgaacttg tccttactga cccactcttg ggaatgaaag gagctgtcaa gaaagcggaa
240
gagatacaag caaagacacc caactcgtac atccttcaac aatttgaaaa tccagctaac
300
ccaaagattc actatgagac tactgggcct gaaatctgga aagctacagc aggaaaaatt
360
gatggccttg tatctggtat c
381

<210> 1786

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1786

Ile	Thr	Asp	Ala	Glu	Glu	Lys	Gly	Leu	Ile	Thr	Pro	Gly	Val	Ser	Val
1			5					10					15		
Leu	Ile	Glu	Pro	Thr	Ser	Gly	Asn	Thr	Gly	Ile	Gly	Leu	Ala	Phe	Met
			20				25					30			
Ala	Ala	Ala	Lys	Gly	Tyr	Lys	Leu	Thr	Leu	Thr	Met	Pro	Ala	Ser	Met
		35				40				45					
Ser	Met	Glu	Arg	Arg	Ile	Ile	Leu	Lys	Ala	Phe	Gly	Ala	Glu	Leu	Val
	50				55				60						
Leu	Thr	Asp	Pro	Leu	Leu	Gly	Met	Lys	Gly	Ala	Val	Lys	Lys	Ala	Glu
65				70					75					80	
Glu	Ile	Gln	Ala	Lys	Thr	Pro	Asn	Ser	Tyr	Ile	Leu	Gln	Gln	Phe	Glu
			85					90						95	
Asn	Pro	Ala	Asn	Pro	Lys	Ile	His	Tyr	Glu	Thr	Thr	Gly	Pro	Glu	Ile
		100					105						110		
Trp	Lys	Ala	Thr	Ala	Gly	Lys	Ile	Asp	Gly	Leu	Val	Ser	Gly	Ile	
		115				120						125			

<210> 1787

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1787

gtgcacacag caattcaata tgccaagaca ccagggttgca gcagagaaag atttaattgt
60
agggtcacct aacaaggaga tgagaacaaa ctttaaactct atctctctaa ggaatttggg
120
cttcgggtttt ttaagggttta gaatgggcca aaacatggac attattgatt ggtcaaagag
180

tacagggtca tggaacctgg agatgaaaaa gccatattct catgctgac ctgttcctct
 240
 gtggaaggtc ttcaaattgg ttgccggaat aaaagatctg tcaaacatct tagg
 294

<210> 1788
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 1788
 Met Pro Arg His Gln Val Ala Ala Glu Lys Asp Leu Ile Val Gly Ser
 1 5 10 15
 Pro Asn Lys Glu Met Arg Thr Asn Phe Lys Ser Ile Ser Leu Arg Asn
 20 25 30
 Leu Asp Phe Gly Phe Leu Arg Phe Arg Met Gly Gln Asn Met Asp Ile
 35 40 45
 Ile Asp Trp Ser Lys Ser Thr Gly Ser Trp Asn Leu Glu Met Lys Lys
 50 55 60
 Pro Tyr Ser His Ala Asp Pro Val Pro Leu Trp Lys Val Phe Lys Leu
 65 70 75 80
 Val Ala Gly Ile Lys Asp Leu Ser Asn Ile Leu
 85 90

<210> 1789
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 1789
 ttccacata caccacgcg gcatgtcctg acagagatgc acaccctag cacatattca
 60
 cacacacaga catgccacac cccgccatcc cccacactc gtacacgccc accaccctc
 120
 gcaggcacac atgcacacac gcgcgcgcac acgcacacac acccccagcc cggaccggcc
 180
 gacctgtcc cgggggtctc tccgcaggc aggtctctc gccgagtctc cgaaaagggg
 240
 cggtcgtggc ggccctggcg ccagctggg caacgcttcg tggtatctca ccgcttctct
 300
 ctgttgtgcc cagcgccccg actgaagatc cggatcttca gtccttggcg cgc
 353

<210> 1790
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 1790
 Met His Thr Pro Ser Thr Tyr Ser His Thr Gln Thr Cys His Thr Pro
 1 5 10 15
 Pro Ser Pro His Thr Arg Thr Arg Pro Pro Pro Leu Ala Gly Thr His
 20 25 30
 Ala His Thr Arg Ala His Thr His Thr His Pro Gln Pro Gly Pro Ala


```

      35              40              45
Asp Leu Leu Pro Gly Val Ser Pro Ala Gly Arg Ser Pro Arg Arg Val
  50              55              60
Ser Glu Lys Gly Arg Ser Trp Arg Pro Trp Arg Pro Ala Gly Gln Arg
  65              70              75              80
Phe Val Val Ser His Arg Phe Ser Leu Leu Cys Pro Ala Pro Arg Leu
      85              90              95
Lys Ile Arg Ile Phe Ser Pro Trp Arg
      100              105

```

<210> 1791
 <211> 355
 <212> DNA
 <213> Homo sapiens

```

<400> 1791
aaatttcagt tagagattag ggaaaataaa gatgttattt tttcccatcc tagtttacag
  60
accccccaga aaccctactca tggattctcc cgagtctttg gacctggctc agacaccctt
  120
gctttggatc aagccaatgc atgtatcccc taacacacccc atgctttatg tggtccttgc
  180
ccctccctgc tcaggggact gcttggttaac ttcattgggt tggggacata tatattatag
  240
gagagagaca gagaaaaaga aagagaggaa atgttattct ccttgtctgt atctgtatct
  300
ccactccgat tcccatctccc tctgtctctc tctctctctt cctcccttca cgcgt
  355

```

<210> 1792
 <211> 108
 <212> PRT
 <213> Homo sapiens

```

<400> 1792
Met Leu Phe Phe Pro Ile Leu Val Tyr Arg Pro Pro Arg Asn Pro Leu
  1              5              10              15
Met Asp Ser Pro Glu Ser Leu Asp Leu Ala Gln Thr Pro Leu Leu Trp
      20              25              30
Ile Lys Pro Met His Val Ser Pro Asn Thr Pro Met Leu Tyr Val Val
      35              40              45
Pro Ala Pro Pro Cys Ser Gly Asp Cys Leu Leu Thr Ser Leu Gly Trp
      50              55              60
Gly His Ile Tyr Tyr Arg Arg Glu Thr Glu Lys Lys Lys Glu Arg Lys
  65              70              75              80
Cys Tyr Ser Pro Cys Leu Tyr Leu Tyr Leu His Ser Asp Ser His Ser
      85              90              95
Leu Cys Cys Ser Pro Leu Ser Pro Pro Phe Thr Arg
      100              105

```

<210> 1793
 <211> 510
 <212> DNA
 <213> Homo sapiens

<400> 1793

tgggttccag cccgtagatg accttggcct gggaggcctt ccgaaggcca cacccatattc
 60
 caccctctcg gagctcctcg cttaccagtc gcccagaag cttgtccccc cagcagccag
 120
 agtcagccag acccttagca aacaccatag gggatcatctc aatctcttct ccaacttcac
 180
 cttcttctct ggagatgaat cctgacaaca cctcagggtc gaggcagaag tcggtggagg
 240
 ccgagccgtg ctcatgtgg atggtgcacc gatacacacc gcagtctacg ggggaggcct
 300
 gcacgatggc caaggccgcc ggccctcat cccctgcgt cctgcccacc tcgcccactg
 360
 ggcgtgatc cttggcccat gtcaagactg agtcactaag aatgttgaaa aactggcacc
 420
 acagcttcag gctaccggag gcatcaggaa actgctccac ccgaatcttc cggatcacct
 480
 gtggggcttt cagcaggtct ttggctttcc
 510

<210> 1794

<211> 116

<212> PRT

<213> Homo sapiens

<400> 1794

Met	Thr	Leu	Ala	Trp	Glu	Ala	Phe	Arg	Arg	Pro	His	Pro	Tyr	Pro	Pro
1			5						10					15	
Pro	Arg	Ser	Ser	Ser	Leu	Thr	Ser	Arg	Pro	Lys	Ser	Leu	Ser	Pro	Gln
			20					25					30		
Gln	Pro	Glu	Ser	Ala	Arg	Pro	Leu	Ala	Asn	Thr	Ile	Gly	Val	Ile	Ser
		35					40					45			
Ile	Ser	Ser	Pro	Thr	Ser	Pro	Ser	Ser	Leu	Glu	Met	Asn	Pro	Asp	Asn
		50				55					60				
Thr	Ser	Gly	Leu	Arg	Gln	Lys	Ser	Val	Glu	Ala	Glu	Pro	Cys	Ser	Leu
65				70					75					80	
Trp	Met	Val	His	Arg	Tyr	Thr	Pro	Gln	Ser	Thr	Gly	Glu	Ala	Cys	Thr
			85					90						95	
Met	Ala	Lys	Ala	Ala	Gly	Pro	Ser	Ser	Pro	Ala	Leu	Leu	Pro	Thr	Ser
			100					105						110	
Pro	Thr	Gly	Arg												
			115												

<210> 1795

<211> 386

<212> DNA

<213> Homo sapiens

<400> 1795

ctatgctctg agtcacttct ccaagcattc ctttctgttc ttccttccct gggctgatca
 60
 tttcaagaag tcctacattc cagaaaactt gagaggtgct tcttctctgg aagccctttt
 120

tcttttctgt gagctcaggg agcattctac atacctcagc tgtgtctgct atcttttgc
 180
 taattatcaa tctttccata taaacagtaa aggaccacag tttattcatc agattcccca
 240
 tccaaacctg cacctgcata cataaacgca ctggataaat gtaccgcagt agacagaggg
 300
 tctccaggtt gagagctcca tgagggcacc aatttttgtc tgttttagctg tgtcctcaaa
 360
 gcaaggaagg gttgatccgg tctaga
 386

<210> 1796

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1796

Met	Gln	Val	Gln	Val	Trp	Met	Gly	Asn	Leu	Met	Asn	Lys	Leu	Trp	Ser
1			5					10					15		
Phe	Thr	Val	Tyr	Met	Glu	Arg	Leu	Ile	Ile	Lys	Gln	Lys	Ile	Ala	Asp
		20					25					30			
Thr	Ala	Glu	Val	Cys	Arg	Met	Leu	Pro	Glu	Leu	Thr	Glu	Lys	Lys	Arg
		35					40					45			
Gly	Phe	Gln	Arg	Arg	Ser	Thr	Ser	Gln	Val	Phe	Trp	Asn	Val	Gly	Leu
	50					55				60					
Leu	Glu	Met	Ile	Ser	Pro	Gly	Lys	Glu	Glu	Gln	Lys	Gly	Met	Leu	Gly
65					70					75				80	
Glu	Val	Thr	Gln	Ser	Ile										
					85										

<210> 1797

<211> 348

<212> DNA

<213> Homo sapiens

<400> 1797

aagcttcact atgttgccca ttccatgggc ggcgtgctgg tgcgtgacct gctggcggac
 60
 cggaatttgc cgatgtcatt gatcaggtca tctgtctggg ctgcccgcag cagggctcgc
 120
 gtgccgctaa tttgttggcg ccatttgcgtg gcggcgcac cgtcaaatgg tgtatcacag
 180
 cgactatgtg atgccgcttg cgcccacgcc cggcagcgcg cgttggagcg ccatcaactc
 240
 acagatggac aacctggtgt tgccggtgac ctccggcaatt ttaccgggaa tgacctatgt
 300
 ggcggtggat tacctggggc attgttcggt attgtacagc ccacgcgt
 348

<210> 1798

<211> 108

<212> PRT

<213> Homo sapiens

<400> 1798

```

Met Gly Gly Val Leu Val Arg Asp Leu Leu Ala Asp Arg Asn Leu Pro
 1           5           10           15
Met Ser Leu Ile Arg Ser Ser Val Trp Ala Arg Arg Ser Arg Ala Arg
      20           25           30
Val Pro Leu Ile Cys Trp Arg His Leu Leu Ala Ala His Pro Ser Asn
      35           40           45
Gly Val Ser Gln Arg Leu Cys Asp Ala Ala Cys Ala His Ala Arg Gln
      50           55           60
Arg Ala Leu Glu Arg His Gln Leu Thr Asp Gly Gln Pro Gly Val Ala
65           70           75           80
Gly Asp Leu Gly Asn Phe Thr Gly Asn Asp Pro Cys Gly Gly Gly Leu
      85           90           95
Pro Gly Ala Leu Phe Val Ile Val Gln Pro Thr Arg
      100           105

```

<210> 1799

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1799

```

acgcgtcgcc tctgctgggt cgggattttc cttgctgtag ttaaccaaac caccggcgtc
60
aataccgtca tgtattacgc gcccaagggtg ttggagttcg caggaatgag caccaggcgc
120
tcgattatct cagaggtggc taatggagtc atgtctgtta ttggtgccgc tgcaggcttg
180
tggctcatcg aacggtttga tcgtcgtcac ctgcttatct tcgatgtcac ggcggtcggt
240
gtgtgtctcc ttggtattgc ggctactttc gggctggcaa ttgctcctca tgtgggtcaa
300
ggggtaccga agtgggcgcc tattctcgtg ctcgtcctga tgagtatctt catgcttacc
360
gtgcac
366

```

<210> 1800

<211> 122

<212> PRT

<213> Homo sapiens

<400> 1800

```

Thr Arg Arg Leu Leu Leu Val Gly Ile Phe Leu Ala Val Val Asn Gln
 1           5           10           15
Thr Thr Gly Val Asn Thr Val Met Tyr Tyr Ala Pro Lys Val Leu Glu
      20           25           30
Phe Ala Gly Met Ser Thr Gln Ala Ser Ile Ile Ser Glu Val Ala Asn
      35           40           45
Gly Val Met Ser Val Ile Gly Ala Ala Ala Gly Leu Trp Leu Ile Glu
      50           55           60
Arg Phe Asp Arg Arg His Leu Leu Ile Phe Asp Val Thr Ala Val Gly
65           70           75           80
Val Cys Leu Leu Gly Ile Ala Ala Thr Phe Gly Leu Ala Ile Ala Pro

```


85 90 95
 His Val Gly Gln Gly Val Pro Lys Trp Ala Pro Ile Leu Val Leu Val
 100 105 110
 Leu Met Ser Ile Phe Met Leu Ile Val His
 115 120

<210> 1801
 <211> 597
 <212> DNA
 <213> Homo sapiens

<400> 1801
 aatttctcct tccgtgacta cttcaagaac gaggccattc agtacgcatg ggagctcgtc
 60
 actaagccgg cagaacaggg cggattgggt ttcgatacctg ccagcatctg ggtgacggtc
 120
 cttggacctg ggtttcacc cttgactatccg gaggcgacaca ttgaggcgcg cgaggcgtgg
 180
 cgtgctgcgg gtatccctga cgagcagatt cagggtcgtt cccttaagga caactactgg
 240
 catatggggg ttcccggccc cggcggcccg tgctcgaaa tctacatcga tcgtggccca
 300
 gcctatggtc ccgacgggtg tccagaagca gatgaggacc gttaccttga gatctggaac
 360
 ctcgtattcg agaccgagga tctctcagcg gtgcgcgcta aagatgactt cgacatcgca
 420
 ggccatttgc gcagccttaa catcgacact ggtgccggtc tcgaacgtat tgcctaccta
 480
 ctccagggcg tcgacaatat gtacgagact gaccaggtat tccctgtcat tgagaaagcg
 540
 tccgagatgt cgggcaagcg gtacggcggt cgccacgacg acgacgtccg actacgc
 597

<210> 1802
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 1802
 Asn Phe Ser Phe Gly Asp Tyr Phe Lys Asn Glu Ala Ile Gln Tyr Ala
 1 5 10 15
 Trp Glu Leu Val Thr Lys Pro Ala Glu Gln Gly Gly Leu Gly Phe Asp
 20 25 30
 Pro Ala Ser Ile Trp Val Thr Val Leu Gly Pro Gly Phe His Pro Asp
 35 40 45
 Tyr Pro Glu Gly Asp Ile Glu Ala Arg Glu Ala Trp Arg Ala Ala Gly
 50 55 60
 Ile Pro Asp Glu Gln Ile Gln Gly Arg Ser Leu Lys Asp Asn Tyr Trp
 65 70 75 80
 His Met Gly Val Pro Gly Pro Gly Gly Pro Cys Ser Glu Ile Tyr Ile
 85 90 95
 Asp Arg Gly Pro Ala Tyr Gly Pro Asp Gly Gly Pro Glu Ala Asp Glu
 100 105 110
 Asp Arg Tyr Leu Glu Ile Trp Asn Leu Val Phe Glu Thr Glu Asp Leu

115 120 125
 Ser Ala Val Arg Ala Lys Asp Asp Phe Asp Ile Ala Gly Pro Leu Arg
 130 135 140
 Ser Leu Asn Ile Asp Thr Gly Ala Gly Leu Glu Arg Ile Ala Tyr Leu
 145 150 155 160
 Leu Gln Gly Val Asp Asn Met Tyr Glu Thr Asp Gln Val Phe Pro Val
 165 170 175
 Ile Glu Lys Ala Ser Glu Met Ser Gly Lys Arg Tyr Gly Val Arg His
 180 185 190
 Asp Asp Asp Val Arg Leu Arg
 195

<210> 1803

<211> 708

<212> DNA

<213> Homo sapiens

<400> 1803

cccacaacga tggccgcat ggtggatggg gaagtgcctg aggaggtcac acctaaggac
 60
 ctcatcctgg ccctcatctc cgagatcggc accggtgggg gacaagggtca tatggtcgag
 120
 tatcgcgggc aggccatcga gaagatgtcg atggaggggtc gcatgacgat ctgcaatatg
 180
 tcgattgagt ggggagctcg cgtcggcatg gttgcttctg atgagaccac cttcacctac
 240
 ctcaaggatc gtccgcacgc tccgcgtggt gcacagtggg acaaggctgt cgcgtactgg
 300
 cgcactctgc gtactgacga cgatgcgacc tttgacgctg agatccatgt ggacgcctcg
 360
 aatctcgccc ctttcgttac ctgggggtacc aaccgggggc agggatcccc cctaggcggt
 420
 gtggtgcccg ccgtcgaaga ctttgaggac gaggtagctc gcagcgcagc gtttgaggta
 480
 catggatttg accccgacga gatcggttcc cggtttgctg acatctttcg caataactct
 540
 gcgaacaacg gcttggtact ggctcaggtt gatcccaagg tcgtcggaga gttgtgggac
 600
 tttgccgagc agcatcctgg tgagcagctc accctctccc tcgagaatcg gacgattaac
 660
 cttccgggtc gcacgaccta cccgttccat attgatgacg tcacgcgt
 708

<210> 1804

<211> 236

<212> PRT

<213> Homo sapiens

<400> 1804

Pro Thr Thr Met Ala Val Met Val Asp Gly Glu Val Pro Glu Glu Val
 1 5 10 15
 Thr Pro Lys Asp Leu Ile Leu Ala Leu Ile Ser Glu Ile Gly Thr Gly
 20 25 30
 Gly Gly Gln Gly His Met Val Glu Tyr Arg Gly Glu Ala Ile Glu Lys

35	40	45
Met Ser Met Glu Gly Arg Met Thr Ile Cys Asn Met Ser Ile Glu Trp		
50	55	60
Gly Ala Arg Val Gly Met Val Ala Ser Asp Glu Thr Thr Phe Thr Tyr		
65	70	75
Leu Lys Asp Arg Pro His Ala Pro Arg Gly Ala Gln Trp Asp Lys Ala		
85	90	95
Val Ala Tyr Trp Arg Thr Leu Arg Thr Asp Asp Asp Ala Thr Phe Asp		
100	105	110
Ala Glu Ile His Val Asp Ala Ser Asn Leu Ala Pro Phe Val Thr Trp		
115	120	125
Gly Thr Asn Pro Gly Gln Gly Ser Pro Leu Gly Gly Val Val Pro Ala		
130	135	140
Val Glu Asp Phe Glu Asp Glu Val Ala Arg Ser Ala Ala Phe Gly Val		
145	150	155
His Gly Phe Asp Pro Asp Glu Ile Gly Ser Arg Phe Ala Asp Ile Phe		
165	170	175
Arg Asn Asn Ser Ala Asn Asn Gly Leu Leu Leu Ala Gln Val Asp Pro		
180	185	190
Lys Val Val Gly Glu Leu Trp Asp Phe Ala Glu Gln His Pro Gly Glu		
195	200	205
Gln Leu Thr Leu Ser Leu Glu Asn Arg Thr Ile Asn Leu Pro Gly Arg		
210	215	220
Thr Thr Tyr Pro Phe His Ile Asp Asp Val Thr Arg		
225	230	235

<210> 1805

<211> 833

<212> DNA

<213> Homo sapiens

<400> 1805

```

nccgcagtgg tgtgggacaa gaacaccggt gagccggttt ataacgccat cgtgtggcag
60
gacacgcgca ctcaaaagat ctgtaacgaa ctagctggtg acaagggcgc cgaccgctac
120
aaggagatct gtggtctggg cctgtcgacc tatttctctg gcccgagggt caaatggatt
180
ctcgacaacg ttgagggagc cgtgctgagg gccgaggccg gcgatctgct cttcggtaac
240
atggacactt ggggtctgtg gaacctgact ggcggtacta acggtggcgt gcacatcacc
300
gatccgacca acgcgtcccc aaccatgctc atggacgtcc gaaagctgca gtgggacgac
360
tcgatgtgcy aggtcatggg aattccaaag tccatgcttc ctgagatcaa gtcctcctcc
420
gagatctacg gctatggctg caagaacggc ctgctgatcg ataccccgat ctccggcatt
480
cttggcgatc agcaggccgc cacctttggc caggcttgct tccaaaaggg catggcgaag
540
aacacgtacg gcaccggctg cttcatgctc atgaacacag gtgaggaggc catcttctcc
600
gagaacggtc tgctgaccac cgtctgctac aagattgggt accagcccac cgtctatgcc
660

```


ctggaagggtt cgatcgccgt cgctggatcg ctggtacagt ggctgcgcga caacctcaag
 720
 atgttcgaga ccgccccgca aatcgaagcc ctcgccaaca ccgtcgagga caatgggtggc
 780
 gcctactttg tgccggcctt ctctggcctg ttcgcgcctg actggcgctcc gga
 833

<210> 1806
 <211> 277
 <212> PRT
 <213> Homo sapiens

<400> 1806
 Xaa Ala Val Val Trp Asp Lys Asn Thr Gly Glu Pro Val Tyr Asn Ala
 1 5 10 15
 Ile Val Trp Gln Asp Thr Arg Thr Gln Lys Ile Cys Asn Glu Leu Ala
 20 25 30
 Gly Asp Lys Gly Ala Asp Arg Tyr Lys Glu Ile Cys Gly Leu Gly Leu
 35 40 45
 Ser Thr Tyr Phe Ser Gly Pro Lys Val Lys Trp Ile Leu Asp Asn Val
 50 55 60
 Glu Gly Ala Arg Ala Arg Ala Glu Ala Gly Asp Leu Leu Phe Gly Asn
 65 70 75 80
 Met Asp Thr Trp Val Leu Trp Asn Leu Thr Gly Gly Thr Asn Gly Gly
 85 90 95
 Val His Ile Thr Asp Pro Thr Asn Ala Ser Arg Thr Met Leu Met Asp
 100 105 110
 Val Arg Lys Leu Gln Trp Asp Asp Ser Met Cys Glu Val Met Gly Ile
 115 120 125
 Pro Lys Ser Met Leu Pro Glu Ile Lys Ser Ser Ser Glu Ile Tyr Gly
 130 135 140
 Tyr Gly Arg Lys Asn Gly Leu Leu Ile Asp Thr Pro Ile Ser Gly Ile
 145 150 155 160
 Leu Gly Asp Gln Gln Ala Ala Thr Phe Gly Gln Ala Cys Phe Gln Lys
 165 170 175
 Gly Met Ala Lys Asn Thr Tyr Gly Thr Gly Cys Phe Met Leu Met Asn
 180 185 190
 Thr Gly Glu Glu Ala Ile Phe Ser Glu Asn Gly Leu Leu Thr Thr Val
 195 200 205
 Cys Tyr Lys Ile Gly Asp Gln Pro Thr Val Tyr Ala Leu Glu Gly Ser
 210 215 220
 Ile Ala Val Ala Gly Ser Leu Val Gln Trp Leu Arg Asp Asn Leu Lys
 225 230 235 240
 Met Phe Glu Thr Ala Pro Gln Ile Glu Ala Leu Ala Asn Thr Val Glu
 245 250 255
 Asp Asn Gly Gly Ala Tyr Phe Val Pro Ala Phe Ser Gly Leu Phe Ala
 260 265 270
 Pro Tyr Trp Arg Pro
 275

<210> 1807
 <211> 420
 <212> DNA
 <213> Homo sapiens

<400> 1807
 nnntatcggc aagtggtcg aaatggctct tgactatgtc aacggtgaca cgtgcgccgc
 60
 gaccgccccca ttcatttgtc gtttgacgtc gacgcgatgg accctagcgt ggccccgagc
 120
 acaggcacac cggtcggtgg tggcttcaca ttccgagaag gccactacat atgcgaggcg
 180
 gtagctgaga cgggctcggt ggtggctatg gatatggtag aagtcaaccc ccatcttgaa
 240
 aagcatgcgg ctgagcagac gatcgccgtg ggttggtccc tcattcggtc ggcgctgggg
 300
 gagacgttc tgtaatgggt gcatgatggg ccggtgggtcc atagccatgc atagacactc
 360
 cgggcgctga tatgatgagt gacatagcac gtacgataaa tctcggtttt gagcacgcgt
 420

<210> 1808
 <211> 88
 <212> PRT
 <213> Homo sapiens

<400> 1808
 His Val Arg Arg Asp Arg Pro Ile His Leu Ser Phe Asp Val Asp Ala
 1 5 10 15
 Met Asp Pro Ser Val Ala Pro Ser Thr Gly Thr Pro Val Arg Gly Gly
 20 25 30
 Leu Thr Phe Arg Glu Gly His Tyr Ile Cys Glu Ala Val Ala Glu Thr
 35 40 45
 Gly Ser Leu Val Ala Met Asp Met Val Glu Val Asn Pro His Leu Glu
 50 55 60
 Lys His Ala Ala Glu Gln Thr Ile Ala Val Gly Cys Ser Leu Ile Arg
 65 70 75 80
 Ser Ala Leu Gly Glu Thr Leu Leu
 85

<210> 1809
 <211> 340
 <212> DNA
 <213> Homo sapiens

<400> 1809
 nnaccggtga tcgcatcggg gagcctcggc gcgatgcgcg tgttcgacct tcgccatcgc
 60
 cagaccggtg tcacgcatgc gtatcgcttc gggcatggca gcctcctcgt gatgcggggc
 120
 cccacccagg ccgaatggca gcatcgctg ccgaaagcgc cgggtgtgca gggcgagcgc
 180
 gtgaacctga cgtttcggcg cgtgatgccg gtcggtatgg gccggtaaca accggcgctg
 240
 ccgaggtgcc cggatcgccg ggcgattcgc gcccgtttt cgcgattcat gcgcgatcga
 300
 tacgggcagg cggtcgcatg tgcggcacgt tgccgcacgn
 340

<210> 1810
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 1810
 Xaa Pro Val Ile Ala Ser Val Ser Leu Gly Ala Met Arg Val Phe Asp
 1 5 10 15
 Leu Arg His Arg Gln Thr Gly Val Thr His Ala Tyr Arg Leu Gly His
 20 25 30
 Gly Ser Leu Leu Val Met Arg Gly Pro Thr Gln Ala Glu Trp Gln His
 35 40 45
 Arg Val Pro Lys Ala Pro Gly Val Gln Gly Glu Arg Val Asn Leu Thr
 50 55 60
 Phe Arg Arg Val Met Pro Val Gly Met Gly Arg
 65 70 75

<210> 1811
 <211> 500
 <212> DNA
 <213> Homo sapiens

<400> 1811
 nnacgcgtgc taggaatagc catggactca tcatacagata catgctggat ttataacttca
 60
 ctgggtggat tgtatgagct gtcgtaaaa gatgaggctc gcgatatgtg gcatttgttg
 120
 ctgaaacggt gcgactttga gaaggcacta acattttgtc gtgatgagac gtgtcggaag
 180
 cagggtactgg aaaagaaggg cgatgcactg ctacacgcag gtcagctcat ggaggccgctc
 240
 gagtgcctatg ctcaggccca gacaccggcc tttgaacagg ttgtgctttc tttgatggac
 300
 gtctgtgccc acaaggcatt gcgtcgatat gtcagactgc gtctcgacaa gatgccgaaa
 360
 caagctcgcg tgcctcgtct catgctggct acttggetca ttgaattgta tgtggccgccc
 420
 attcaagcgc atgaaccac ctccgaacat tatcagacac ttttgctgga agcccaggag
 480
 acacttgagc ggcacatga
 500

<210> 1812
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 1812
 Xaa Arg Val Leu Gly Ile Ala Met Asp Ser Ser Ser Asp Thr Cys Trp
 1 5 10 15
 Ile Tyr Thr Ser Leu Gly Gly Leu Tyr Glu Leu Leu Val Lys Asp Glu
 20 25 30
 Ala Arg Asp Met Trp His Leu Leu Leu Lys Arg Cys Asp Phe Glu Lys


```

      35          40          45
Ala Leu Thr Phe Cys Arg Asp Glu Thr Cys Arg Lys Gln Val Leu Glu
  50          55          60
Lys Lys Gly Asp Ala Leu Leu His Ala Gly Gln Leu Met Glu Ala Val
  65          70          75          80
Glu Cys Tyr Ala Gln Ala Gln Thr Pro Ala Phe Glu Gln Val Val Leu
      85          90          95
Ser Leu Met Asp Val Cys Ala Asp Lys Ala Leu Arg Arg Tyr Val Arg
      100          105          110
Leu Arg Leu Asp Lys Met Pro Lys Gln Ala Arg Val Pro Arg Leu Met
      115          120          125
Leu Ala Thr Trp Leu Ile Glu Leu Tyr Val Ala Ala Ile Gln Ala His
      130          135          140
Glu Pro Thr Ser Glu His Tyr Gln Thr Leu Leu Leu Glu Ala Gln Glu
  145          150          155          160
Thr Leu Glu Arg His His
      165

```

<210> 1813

<211> 426

<212> DNA

<213> Homo sapiens

<400> 1813

```

tctagagccg ttgtgatcgg tatccatggt tggatggggg tcatctcgat ggaggagtgt
  60
gtcctgaggg gtggcagtga cctggtaggg gtgcctgcgg cgtcgcggct tgcgatcgct
  120
ggttctcggg gatgactctc ggatgaatat agatctgcta agacgtcatt agattcgctt
  180
ggcgcttggt tgggaacggg tgtgaagcag ccttctgatg gatgtatttt tgcgttggtt
  240
aataaggttt caatattaat tgaatatggc gctagatgct ggtttaggat cagttgacgt
  300
ccgctgtaga tcctccctat ggtcattctg gggccaggcg ctccgccagc tggccatcgc
  360
aacaatggtg tggcgaaggg ttatgaggtg agtatggctg agcaagtcgt tggacaggcg
  420
tctaca
  426

```

<210> 1814

<211> 108

<212> PRT

<213> Homo sapiens

<400> 1814

```

Met Thr Ile Gly Arg Ile Tyr Ser Gly Arg Gln Leu Ile Leu Asn Gln
  1          5          10          15
His Leu Ala Pro Tyr Ser Ile Asn Ile Glu Thr Leu Phe Asn Asn Ala
      20          25          30
Lys Ile His Pro Ser Glu Gly Cys Phe Thr Pro Val Pro Asn Gln Ala
      35          40          45
Pro Ser Glu Ser Asn Asp Val Leu Ala Asp Leu Tyr Ser Ser Glu Ser

```



```

      50              55              60
His Pro Arg Glu Pro Ala Ile Ala Ser Arg Asp Ala Ala Gly Thr Pro
65              70              75              80
Thr Arg Ser Leu Pro Leu Arg Thr His Ser Ser Ile Glu Met Asn
      85              90              95
Pro Ile Gln Pro Trp Ile Pro Ile Thr Thr Ala Leu
      100              105

```

<210> 1815
 <211> 303
 <212> DNA
 <213> Homo sapiens

```

<400> 1815
ggcgcccaca tggctacgct cgcaccgcgg cacaaggtaa gccgtagcgg cgggatacgag
60
cgccaggccg cgcatactcg catggagcgc gatcagttcg gccatcatcg cgtcgtcggg
120
cgtgccgata tcgaggggca acgccgcgcc gagccgcgaa gccagatcgg gcagcgcgat
180
ccgccagcca tcggcaaatt cgcgagtgat gacgagcaag ggccgcctgg tctcctgcgc
240
ccggttcag cagtggaaca cgttcgctc gggcagacgg gcggcatcgg cgatcacggt
300
acc
303

```

<210> 1816
 <211> 98
 <212> PRT
 <213> Homo sapiens

```

<400> 1816
Met Ala Thr Leu Ala Pro Arg His Lys Val Ser Arg Ser Gly Gly Ile
1              5              10              15
Glu Arg Gln Ala Ala His Leu Gly Met Glu Arg Asp Gln Phe Gly His
      20              25              30
His Arg Val Val Gly Arg Ala Asp Leu Glu Gly Gln Arg Arg Ala Glu
      35              40              45
Pro Arg Ser Gln Ile Gly Gln Arg Asp Pro Pro Ala Ile Gly Lys Phe
      50              55              60
Ala Ser Asp Asp Glu Gln Gly Pro Pro Gly Leu Leu Arg Pro Val Pro
65              70              75              80
Ala Val Glu His Val Arg Leu Gly Gln Thr Gly Gly Ile Gly Asp His
      85              90              95
Gly Thr

```

<210> 1817
 <211> 413
 <212> DNA
 <213> Homo sapiens

<400> 1817

nncagcttgc aagaccgagg ccacacagtg tacatcttaa catcacattt cgatgcgtcg
 60
 catgcgtttg agccacacag cgatggcaca cttcaggtca ttcacgcaaa gacatggatc
 120
 ccgcgtcct tatttcacat gctgcatctg cgatggccat tcgcagcagt tttttctctt
 180
 gtgatgcagg tcgtggtagc agcgtatgga tcgtcactcg cagccactt gccgcatgtg
 240
 tacagggcgt gacgcatgtc ccgtcaaact cgctcccaga cgtgtttgtt attgaccaac
 300
 ttccagcagc gataccccta atcaaactcc tgtgtgggag gcgtgtcatg tactactgtc
 360
 acttccctga caaagaaatc agcgtgtctc tggctcgaca gcgaggcacg cgt
 413

<210> 1818

<211> 83

<212> PRT

<213> Homo sapiens

<400> 1818

Xaa	Ser	Leu	Gln	Asp	Arg	Gly	His	Thr	Val	Tyr	Ile	Leu	Thr	Ser	His
1				5					10					15	
Phe	Asp	Ala	Ser	His	Ala	Phe	Glu	Pro	Thr	Arg	Asp	Gly	Thr	Leu	Gln
			20					25				30			
Val	Ile	His	Ala	Lys	Thr	Trp	Ile	Pro	Arg	Ser	Leu	Phe	His	Met	Leu
		35				40					45				
His	Leu	Arg	Trp	Pro	Phe	Ala	Ala	Val	Phe	Ser	Leu	Val	Met	Gln	Val
	50				55					60					
Val	Val	Ala	Ala	Tyr	Gly	Ser	Ser	Leu	Ala	Arg	His	Leu	Pro	His	Val
65				70					75				80		
Tyr	Arg	Ala													

<210> 1819

<211> 343

<212> DNA

<213> Homo sapiens

<400> 1819

ggatccaaga gtggggcatc aggaacatgc catggttgtc gtggtgctgg aatgagaaca
 60
 atcacaagac agataggcct tggcatgatc caacagatga acactgtttg ccctgaatgc
 120
 aaaggatcag gtgagatcat aagtgacaag gacaaatgcc caagctgtaa aggaacaaca
 180
 gtagtccagg agaagaagg gtttagaggt catgtggaga aaggaatgca acataaccaa
 240
 aagattgtat tccagggatc ggctgatgaa gctcctgata cgggtacagg agacattgtt
 300
 tttgtcttgc aacttaaaga ccatccaaaa tttaagagga tgt
 343

<210> 1820

<211> 114
 <212> PRT
 <213> Homo sapiens

<400> 1820
 Gly Ser Lys Ser Gly Ala Ser Gly Thr Cys His Gly Cys Arg Gly Ala
 1 5 10 15
 Gly Met Arg Thr Ile Thr Arg Gln Ile Gly Leu Gly Met Ile Gln Gln
 20 25 30
 Met Asn Thr Val Cys Pro Glu Cys Lys Gly Ser Gly Glu Ile Ile Ser
 35 40 45
 Asp Lys Asp Lys Cys Pro Ser Cys Lys Gly Asn Lys Val Val Gln Glu
 50 55 60
 Lys Lys Val Leu Glu Val His Val Glu Lys Gly Met Gln His Asn Gln
 65 70 75 80
 Lys Ile Val Phe Gln Gly Gln Ala Asp Glu Ala Pro Asp Thr Gly Thr
 85 90 95
 Gly Asp Ile Val Phe Val Leu Gln Leu Lys Asp His Pro Lys Phe Lys
 100 105 110
 Arg Met

<210> 1821
 <211> 285
 <212> DNA
 <213> Homo sapiens

<400> 1821
 aagcttgagt tcagcaagat cttggaggct attaaggcaa acttcaacga caagttcgat
 60
 gaggtcggga agaagtgggg aggtggcatc atgggatcca agtcgcaggc caagaccaag
 120
 gcccgggaaa agttgctcgc caaggaggcc gcccgaggga tgacctagat tgtctactgc
 180
 tgtgtctgcc ctgtagtttg acggggaaga actgatgaac tcgtattgtg gttttccgaa
 240
 tctagtttca tatgtttctg tccaccagac catgtttaga agctt
 285

<210> 1822
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 1822
 Lys Leu Glu Phe Ser Lys Ile Leu Glu Ala Ile Lys Ala Asn Phe Asn
 1 5 10 15
 Asp Lys Phe Asp Glu Val Gly Lys Lys Trp Gly Gly Gly Ile Met Gly
 20 25 30
 Ser Lys Ser Gln Ala Lys Thr Lys Ala Arg Glu Lys Leu Leu Ala Lys
 35 40 45
 Glu Ala Ala Gln Arg Met Thr
 50 55

<210> 1823
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 1823
 ngttggctgc tggtgctggg cgttctgtcc ctgacgggct ggcgccgttc cgatgcgctg
 60
 tggggcgtgg tcgataagct ctgcatggcc aactatcagc aaaagcgaga tccggccccg
 120
 tgtgagcaga tttatatgcc gcagggtaaa ggcgagggt ttagcgtgct gcaaaacccg
 180
 cgttatccct atcatttcat tctggtgccg acggcgccgc tttccggcat tgaaagcccc
 240
 ctgctgctgg ccggagagcg aacggactat tttggctatg catggctgat gcgttaccgg
 300
 ctggccgccc agtatggcgg gccggtgccg gacgacaggc tgggcatggc gatcaactcc
 360
 gcttacggcc gcagccagaa ccaattg
 387

<210> 1824
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 1824
 Xaa Trp Leu Leu Leu Leu Gly Val Leu Ser Leu Thr Gly Cys Ala Arg
 1 5 10 15
 Ser Asp Ala Leu Trp Gly Val Val Asp Lys Leu Cys Met Ala Asn Tyr
 20 25 30
 Gln Gln Lys Arg Asp Pro Ala Pro Cys Glu Gln Ile Tyr Met Pro Gln
 35 40 45
 Gly Lys Ala Gln Gly Phe Ser Val Leu Gln Asn Pro Arg Tyr Pro Tyr
 50 55 60
 His Phe Ile Leu Val Pro Thr Ala Pro Leu Ser Gly Ile Glu Ser Pro
 65 70 75 80
 Leu Leu Leu Ala Gly Glu Arg Thr Asp Tyr Phe Gly Tyr Ala Trp Leu
 85 90 95
 Met Arg Tyr Arg Leu Ala Ala Glu Tyr Gly Gly Pro Val Pro Asp Asp
 100 105 110
 Arg Leu Gly Met Ala Ile Asn Ser Ala Tyr Gly Arg Ser Gln Asn Gln
 115 120 125
 Leu

<210> 1825
 <211> 413
 <212> DNA
 <213> Homo sapiens

<400> 1825
 gtgcacggac gaccgcgcac agggactcgt gtgccgcgca tgggacgacg gcgatgcgtg
 60

tgcgtgcata ccgctgctct ggcaggctgt gcgtgcgatt gtcgccgaca catcggcggc
 120
 ttggcacgtc gtgattgggc gcctaggcac catgtcgcag gccgacatgg acatgtgggc
 180
 gtcgtgcctc gatacgcgcg acccttcctg ctctcgggtg gccttggtgtg cctggagcgc
 240
 gatgcctggc ctacgggcac gcgatgcac ggtgggtctac ctgtcggaca tgccgctggg
 300
 tctggcctca ggtgctgggc cgatccgcgt gcctcgtcgc gcgttatgtg tctgccggcg
 360
 cctatgccat tcatctcgtg cagctacgtc acctggctga tctcgacgcg gct
 413

<210> 1826

<211> 124

<212> PRT

<213> Homo sapiens

<400> 1826

Met	Gly	Arg	Arg	Arg	Cys	Val	Cys	Val	His	Thr	Ala	Ala	Leu	Ala	Gly
1					5				10				15		
Arg	Ala	Cys	Asp	Cys	Arg	Arg	His	Ile	Gly	Gly	Leu	Ala	Arg	Arg	Asp
		20					25				30				
Trp	Ala	Pro	Arg	His	His	Val	Ala	Gly	Arg	His	Gly	His	Val	Gly	Val
		35				40					45				
Val	Pro	Arg	Tyr	Ala	Arg	Pro	Phe	Leu	Leu	Ser	Val	Gly	Leu	Val	Cys
	50				55					60					
Leu	Glu	Arg	Asp	Ala	Trp	Pro	Thr	Gly	Thr	Arg	Cys	Ile	Gly	Gly	Leu
65			70					75					80		
Pro	Val	Gly	His	Ala	Ala	Gly	Ser	Gly	Leu	Arg	Cys	Val	Ala	Asp	Pro
			85					90					95		
Arg	Ala	Ser	Leu	Gly	Val	Met	Cys	Leu	Pro	Ala	Pro	Met	Pro	Phe	Ile
			100					105					110		
Ser	Cys	Ser	Tyr	Val	Thr	Trp	Leu	Ile	Ser	Thr	Arg				
			115					120							

<210> 1827

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1827

ctggccaact gggtgccgga cctgttcattg aagcgcgtcg aagccgacca ggaatggctg
 60
 ctgttcgata cgcgcgtggg gccggagttc accgacctgt tcggcggaagc cttcgaagcc
 120
 gcctacctgc aggccgaagc gcagggcaag gccaacgcga cgatctctgc ccgcaagctg
 180
 tacgcccgca tgatgcgtac gctggccgag accggcaacg gctggatgac cttcaaggac
 240
 aagtgcacc gcgccagcaa ccagaccctg cgtccgggca acgtgatcca cctgtccaac
 300
 ctgtgcaccg aaatcctgga agtcacttcc aacgatgaaa ccgcg
 345

<210> 1828
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 1828
 Leu Ala Asn Trp Val Pro Asp Leu Phe Met Lys Arg Val Glu Ala Asp
 1 5 10 15
 Gln Glu Trp Ser Leu Phe Asp Pro Arg Val Val Pro Glu Phe Thr Asp
 20 25 30
 Leu Phe Gly Glu Ala Phe Glu Ala Ala Tyr Leu Gln Ala Glu Ala Gln
 35 40 45
 Gly Lys Ala Asn Arg Thr Ile Ser Ala Arg Lys Leu Tyr Ala Arg Met
 50 55 60
 Met Arg Thr Leu Ala Glu Thr Gly Asn Gly Trp Met Thr Phe Lys Asp
 65 70 75 80
 Lys Cys Asn Arg Ala Ser Asn Gln Thr Leu Arg Pro Gly Asn Val Ile
 85 90 95
 His Leu Ser Asn Leu Cys Thr Glu Ile Leu Glu Val Thr Ser Asn Asp
 100 105 110
 Glu Thr Ala
 115

<210> 1829
 <211> 4457
 <212> DNA
 <213> Homo sapiens

<400> 1829
 attccaatgg ttgtgtctga ttttgatctt ccagaccaac agatagaaat acttcagagt
 60
 tctgactcgg gatgttcaca gtcctctgct ggggacaact tgagttacga agttgatcct
 120
 gaaaccgtga atgccaaga ggattctcaa atgccaagg aaagctcccc agatgatgat
 180
 gttcaacagg tagtatttga cctgatatgt aaagttgtaa gtggcctcga agtggaaatct
 240
 gcatcagtta catctcaatt agaaattgaa gctatgcccc caaagtgcag tgatatagat
 300
 ccagatgaag agacgattaa aattgaagat gactccattc gacagagtca gaatgctttg
 360
 ctgagtaatg aaagtcttca gtttctgtct gtgtctgcag agggaggcca tgagtgtgtg
 420
 gcaaatggaa tctccaggaa tagctcctca ccttgtatctt caggaaccac acacactctt
 480
 catgactctt ctgttgcttc catagaaacc aaatctagac aaaggagtca cagtagtatt
 540
 caattcagct tcaaagaaaa attatcagaa aaagtttcgg agaaggaaac aatagttaag
 600
 gagtcaggta aacaaccagg agcaaacct aaagtaaac ttgccagaaa aaaggatgat
 660
 gacaagaaaa aatcttcaaa tgaaaaactc aaacaaacca gtgtattctt cagtgtatgg
 720

ctggatttag agaactggta tagctgtgga gagggagaca tttctgaaat tgagagtgac
780
atgggttctc caggatctcg aaaatctccc aatttcaaca ttcatectct ctatcaacat
840
gtgctcctgt atctccagtt gtatgattca tccaggactt tgtatgcttt ctctgccatc
900
aaagccatct tgaaaactaa ccctatagct tttgtaaag ccatttcaac tactagtgtg
960
aataatgcat atactcctca gttgtctctc cttcagaatc tattggccag acaccggatt
1020
tctgttatgg gcaaagattt ttatagtcac attccagtgg actcaaata taacttccgg
1080
agttctatgt acatagaaat tcttatttct ctctgcttat attacatgcg tagccattac
1140
ccaactcatg tcaaggttac tgcacaagat ttaataggca atcgaaacat gcaaagtatg
1200
agcatagaaa ttctgacact actcttcact gagctggcaa aagtaataga aagctcagcg
1260
aagggtttcc ctagttttat ttctgatatg ttatctaagt gcaaagttca gaaagtgatt
1320
cttcattggt tgctgtcatc tatctttagt gctcagaaat ggcatagtga aaaaatggca
1380
ggtaagaacc tgggtgctgt ggaagaagg tttcagagg acagccttat taatttctca
1440
gaggatgaat ttgacaatgg cagcacgttg cagtcacaac ttcttaagg gcttcagagg
1500
ctgattgttc tagaacacag agtaatgact attcctgaag agaatgaaac aggttttgat
1560
tttgttgat ctgacttaga acacatcagt ccccatcaac ccatgacttc tcttcagtat
1620
ttgcatgctc agccaatcac atgtcaaggc atgttctct gtgcagtgat acgagctttg
1680
catcagcact gtgcatgtaa gatgcacca caatggattg gtttaatcac atctactctg
1740
ccttacatgg gaaaagttct gcagagagt gttgtttctg tgacactaca actgtgcaga
1800
aatttagata atctaattca gcagtacaaa tacgaaacag gattatctga tagtaggcct
1860
ctgtggatgg catcaattat tccaccagat atgattctta ctcttttgga agggattaca
1920
gccattatcc attactgttt gttggatcca actacacagt atcaccaact tttggtcagt
1980
gtagaccaga aacacttggt tgaagcacgc agtggaatcc tctcaatcct tcatatgatc
2040
atgtcctctg tgacactgct ttggagcata ctgcatcaag ctgattcttc agaaaagatg
2100
actattgccg catccgcac tcttaccact attaattctg gagctacaaa gaacttgaga
2160
caacagattc ttgaattggt gggccccatt tcaatgaatc atgggtgtca ctttatggct
2220
gccattgcat ttgtgtggaa tgaaagaaga cagaataaaa caaccaccag gaccaaggtc
2280
attcctgcag ccagtgaaga acagctttta ttagtggaat tgggtcgttc aatcagtgtc
2340

atgagagcag aaactgttat ccagactgta aaagaagttt taaagcagcc accagccata
2400
gccaaaggaca agaaacatct ttctttggaa gtctgcatgc ttcagttttt ctatgcttat
2460
attcaaagaa ttccagtgcc caatttagtg gatagctggg cgtcactgtt gatacttctg
2520
aaagactcta tacaactgag tcttccagct ccagggcagt ttcttatact tggggttctg
2580
aatgagttta ttatgaaaaa ccctagtttg gaaaataaaa aagaccaaag agaccttcag
2640
gatgtaactc acaaaatagt ggatgcaatt ggtgcaattg ctgggtcttc tctggaacag
2700
acaacatggc tgcgacgaaa tcttgaagtt aagccttctc ccaaaataat ggtagatgga
2760
accaatttgg aatctgatgt tgaagatatg ttatcacctg caatggaaac cgcaaacata
2820
actccttctg tatatagtgt ccattgcatg acattactct ctgaggtttt ggctcatctt
2880
ttggatatgg ttttctatag tgatgaaaag gagcgggtta ttcctttact tgtaaatatt
2940
atgcattatg ttgtgcccta cctcagaaat cacagtgcac ataatgcccc tagttatcga
3000
gcttggtgcc agctgctcag cagtcttagt gggatatcagt acacacggag agcttggaaa
3060
aaagaagctt ttgacctctt tatggatccc agtttctttc agatggatgc ctcttggtt
3120
aatcattgga gagcaattat ggacaatctg atgacacatg ataaaacaac atttagagat
3180
ttgatgactc gtgtagcagt ggctcaaagc agttcactta atctctttgc aaaccgtgat
3240
gtggagctag aacagagagc tatgcttctt aaaagattag catttgctat ttttagcagt
3300
gaaattgacc agtaccagaa atatcttcca gatatacaag agagattggg tgagagtctc
3360
cgtttgccac aggtgccaac tctccattct caagtgttcc tgtttttcag agtggtactt
3420
ttaagaatgt ctccccaaca tcttacctca ctctggccta ccatgattac agaacttgta
3480
caagtatttt tactgatgga gcaggaactc actgctgatg aagatatttc acggacttca
3540
gggccctctg tggctgggtc ggagacaacg tacacaggag gtaatggctt ctctacttca
3600
tataacagcc agcgggtggt aaacctctat ctctctgctt gcaaattttt ggatttggct
3660
ctcgcatctg cctctgaaaa ccttctcag tttcagatgt accgatgggc ctttattcca
3720
gaagcctcag atgattcagg tttggaagtc agaaggcagg gtatacatca acgagaattt
3780
aaaccttacg tggtagcact agcaaaactt ctctcgaaaa gagcaaagaa aaatccagag
3840
gaagacaact cagggagaac attgggttgg gagccagggc acttgctgct caccatctgc
3900
accgtgcgca gtatggagca gctcctgccg ttcttcaatg tgctcagtca agtcttcaac
3960

agcaaagtca caagccgatg tggaggacac tcagggagtc ctatcctcta ctcaaagtgc
 4020
 ttccctaata aggacatgaa actggagaac cacaacccat gttccagcaa agccaggcaa
 4080
 aaaatagaag agatggtaga aaaagatttt ctggaaggga tgataaaaac ttgagcacca
 4140
 ttgctgggttc catttagctt acatgtaa atgtaattttt aaaacacaca cactgctctg
 4200
 cgttgtatag tttttccttt tttgtatgta acagaacaca tttcagattg tatttaattt
 4260
 aaatatttgt atataagagc aaatgtctga atgtggcctg aatcaagttt aaatatttgt
 4320
 ggctcactact gattatgggtg cctaagagag ctatatatat acacatgtaa agtccattgt
 4380
 ttttattgtc ctgagttgtc ttaaacctgc aaaatataca ctacccattt tttttttcaa
 4440
 aaaaaaaaaa aaaaaaa
 4457

<210> 1830

<211> 1377

<212> PRT

<213> Homo sapiens

<400> 1830

Ile	Pro	Met	Val	Val	Ser	Asp	Phe	Asp	Leu	Pro	Asp	Gln	Gln	Ile	Glu
1				5				10					15		
Ile	Leu	Gln	Ser	Ser	Asp	Ser	Gly	Cys	Ser	Gln	Ser	Ser	Ala	Gly	Asp
		20					25					30			
Asn	Leu	Ser	Tyr	Glu	Val	Asp	Pro	Glu	Thr	Val	Asn	Ala	Gln	Glu	Asp
	35					40					45				
Ser	Gln	Met	Pro	Lys	Glu	Ser	Ser	Pro	Asp	Asp	Asp	Val	Gln	Gln	Val
	50				55					60					
Val	Phe	Asp	Leu	Ile	Cys	Lys	Val	Val	Ser	Gly	Leu	Glu	Val	Glu	Ser
65				70				75						80	
Ala	Ser	Val	Thr	Ser	Gln	Leu	Glu	Ile	Glu	Ala	Met	Pro	Pro	Lys	Cys
			85					90						95	
Ser	Asp	Ile	Asp	Pro	Asp	Glu	Glu	Thr	Ile	Lys	Ile	Glu	Asp	Asp	Ser
		100						105					110		
Ile	Arg	Gln	Ser	Gln	Asn	Ala	Leu	Leu	Ser	Asn	Glu	Ser	Ser	Gln	Phe
		115					120					125			
Leu	Ser	Val	Ser	Ala	Glu	Gly	Gly	His	Glu	Cys	Val	Ala	Asn	Gly	Ile
	130					135					140				
Ser	Arg	Asn	Ser	Ser	Ser	Pro	Cys	Ile	Ser	Gly	Thr	Thr	His	Thr	Leu
145				150						155					160
His	Asp	Ser	Ser	Val	Ala	Ser	Ile	Glu	Thr	Lys	Ser	Arg	Gln	Arg	Ser
			165					170						175	
His	Ser	Ser	Ile	Gln	Phe	Ser	Phe	Lys	Glu	Lys	Leu	Ser	Glu	Lys	Val
		180						185					190		
Ser	Glu	Lys	Glu	Thr	Ile	Val	Lys	Glu	Ser	Gly	Lys	Gln	Pro	Gly	Ala
	195						200						205		
Lys	Pro	Lys	Val	Lys	Leu	Ala	Arg	Lys	Lys	Asp	Asp	Asp	Lys	Lys	Lys
	210					215					220				
Ser	Ser	Asn	Glu	Lys	Leu	Lys	Gln	Thr	Ser	Val	Phe	Phe	Ser	Asp	Gly

225 230 235 240
 Leu Asp Leu Glu Asn Trp Tyr Ser Cys Gly Glu Gly Asp Ile Ser Glu
 245 250 255
 Ile Glu Ser Asp Met Gly Ser Pro Gly Ser Arg Lys Ser Pro Asn Phe
 260 265 270
 Asn Ile His Pro Leu Tyr Gln His Val Leu Leu Tyr Leu Gln Leu Tyr
 275 280 285
 Asp Ser Ser Arg Thr Leu Tyr Ala Phe Ser Ala Ile Lys Ala Ile Leu
 290 295 300
 Lys Thr Asn Pro Ile Ala Phe Val Asn Ala Ile Ser Thr Thr Ser Val
 305 310 315 320
 Asn Asn Ala Tyr Thr Pro Gln Leu Ser Leu Leu Gln Asn Leu Leu Ala
 325 330 335
 Arg His Arg Ile Ser Val Met Gly Lys Asp Phe Tyr Ser His Ile Pro
 340 345 350
 Val Asp Ser Asn His Asn Phe Arg Ser Ser Met Tyr Ile Glu Ile Leu
 355 360 365
 Ile Ser Leu Cys Leu Tyr Tyr Met Arg Ser His Tyr Pro Thr His Val
 370 375 380
 Lys Val Thr Ala Gln Asp Leu Ile Gly Asn Arg Asn Met Gln Met Met
 385 390 395 400
 Ser Ile Glu Ile Leu Thr Leu Leu Phe Thr Glu Leu Ala Lys Val Ile
 405 410 415
 Glu Ser Ser Ala Lys Gly Phe Pro Ser Phe Ile Ser Asp Met Leu Ser
 420 425 430
 Lys Cys Lys Val Gln Lys Val Ile Leu His Cys Leu Leu Ser Ser Ile
 435 440 445
 Phe Ser Ala Gln Lys Trp His Ser Glu Lys Met Ala Gly Lys Asn Leu
 450 455 460
 Val Ala Val Glu Glu Gly Phe Ser Glu Asp Ser Leu Ile Asn Phe Ser
 465 470 475 480
 Glu Asp Glu Phe Asp Asn Gly Ser Thr Leu Gln Ser Gln Leu Leu Lys
 485 490 495
 Val Leu Gln Arg Leu Ile Val Leu Glu His Arg Val Met Thr Ile Pro
 500 505 510
 Glu Glu Asn Glu Thr Gly Phe Asp Phe Val Val Ser Asp Leu Glu His
 515 520 525
 Ile Ser Pro His Gln Pro Met Thr Ser Leu Gln Tyr Leu His Ala Gln
 530 535 540
 Pro Ile Thr Cys Gln Gly Met Phe Leu Cys Ala Val Ile Arg Ala Leu
 545 550 555 560
 His Gln His Cys Ala Cys Lys Met His Pro Gln Trp Ile Gly Leu Ile
 565 570 575
 Thr Ser Thr Leu Pro Tyr Met Gly Lys Val Leu Gln Arg Val Val Val
 580 585 590
 Ser Val Thr Leu Gln Leu Cys Arg Asn Leu Asp Asn Leu Ile Gln Gln
 595 600 605
 Tyr Lys Tyr Glu Thr Gly Leu Ser Asp Ser Arg Pro Leu Trp Met Ala
 610 615 620
 Ser Ile Ile Pro Pro Asp Met Ile Leu Thr Leu Leu Glu Gly Ile Thr
 625 630 635 640
 Ala Ile Ile His Tyr Cys Leu Leu Asp Pro Thr Thr Gln Tyr His Gln
 645 650 655
 Leu Leu Val Ser Val Asp Gln Lys His Leu Phe Glu Ala Arg Ser Gly

1419

1090 1095 1100
 Tyr Gln Lys Tyr Leu Pro Asp Ile Gln Glu Arg Leu Val Glu Ser Leu
 1105 1110 1115 1120
 Arg Leu Pro Gln Val Pro Thr Leu His Ser Gln Val Phe Leu Phe Phe
 1125 1130 1135
 Arg Val Leu Leu Leu Arg Met Ser Pro Gln His Leu Thr Ser Leu Trp
 1140 1145 1150
 Pro Thr Met Ile Thr Glu Leu Val Gln Val Phe Leu Leu Met Glu Gln
 1155 1160 1165
 Glu Leu Thr Ala Asp Glu Asp Ile Ser Arg Thr Ser Gly Pro Ser Val
 1170 1175 1180
 Ala Gly Leu Glu Thr Thr Tyr Thr Gly Gly Asn Gly Phe Ser Thr Ser
 1185 1190 1195 1200
 Tyr Asn Ser Gln Arg Trp Leu Asn Leu Tyr Leu Ser Ala Cys Lys Phe
 1205 1210 1215
 Leu Asp Leu Ala Leu Ala Leu Pro Ser Glu Asn Leu Pro Gln Phe Gln
 1220 1225 1230
 Met Tyr Arg Trp Ala Phe Ile Pro Glu Ala Ser Asp Asp Ser Gly Leu
 1235 1240 1245
 Glu Val Arg Arg Gln Gly Ile His Gln Arg Glu Phe Lys Pro Tyr Val
 1250 1255 1260
 Val Arg Leu Ala Lys Leu Leu Arg Lys Arg Ala Lys Lys Asn Pro Glu
 1265 1270 1275 1280
 Glu Asp Asn Ser Gly Arg Thr Leu Gly Trp Glu Pro Gly His Leu Leu
 1285 1290 1295
 Leu Thr Ile Cys Thr Val Arg Ser Met Glu Gln Leu Leu Pro Phe Phe
 1300 1305 1310
 Asn Val Leu Ser Gln Val Phe Asn Ser Lys Val Thr Ser Arg Cys Gly
 1315 1320 1325
 Gly His Ser Gly Ser Pro Ile Leu Tyr Ser Asn Ala Phe Pro Asn Lys
 1330 1335 1340
 Asp Met Lys Leu Glu Asn His Lys Pro Cys Ser Ser Lys Ala Arg Gln
 1345 1350 1355 1360
 Lys Ile Glu Glu Met Val Glu Lys Asp Phe Leu Glu Gly Met Ile Lys
 1365 1370 1375
 Thr

<210> 1831

<211> 508

<212> DNA

<213> Homo sapiens

<400> 1831

nntcatgaaa ggagaggccg tatgccatt gtcaaactca gtgcgcagtt cgtgcgcgaa
 60
 gcggtttgcc cgcccgaaa atccaagggtg gactattacg acaacgcact caaagggttc
 120
 atcctggagg ctcgaccttc aggtggcaaa accttttacc tgcgctatca cgacagccac
 180
 ggcaagctgc gccaatgcaa gatcggatgat gctgctgcgg tcagctacga caaggcccgg
 240
 cagaaggcca tgcggttgcg ttggaagggtg gaatgggggg gcaatccatt ggaggagcgc
 300

caagccttgc gtgcggtacc gaccctggcc gagttcatcc gcgagaccta tgtgccgcac
 360
 atccacctgc accggaggaa ttttcagtcc acgctgagct tcctcaagtg ccatgtcctg
 420
 ccgcgctttg gagccaagca cctggacgaa atcacgacca acatgctggc cgaggctcac
 480
 caggatctgc gcacgaaggc ctacgcgt
 508

<210> 1832
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 1832
 Xaa His Glu Arg Arg Gly Arg Met Pro Ile Val Lys Leu Ser Ala Gln
 1 5 10 15
 Phe Val Arg Glu Ala Val Cys Pro Pro Gly Lys Ser Lys Val Asp Tyr
 20 25 30
 Tyr Asp Asn Ala Leu Lys Gly Phe Ile Leu Glu Ala Arg Pro Ser Gly
 35 40 45
 Gly Lys Thr Phe Tyr Leu Arg Tyr His Asp Ser His Gly Lys Leu Arg
 50 55 60
 Gln Cys Lys Ile Gly Asp Ala Ala Val Ser Tyr Asp Lys Ala Arg
 65 70 75 80
 Gln Lys Ala Met Arg Leu Arg Trp Lys Val Glu Trp Gly Gly Asn Pro
 85 90 95
 Leu Glu Glu Arg Gln Ala Leu Arg Ala Val Pro Thr Leu Ala Glu Phe
 100 105 110
 Ile Arg Glu Thr Tyr Val Pro His Ile His Leu His Arg Arg Asn Phe
 115 120 125
 Gln Ser Thr Leu Ser Phe Leu Lys Cys His Val Leu Pro Arg Phe Gly
 130 135 140
 Ala Lys His Leu Asp Glu Ile Thr Thr Asn Met Leu Ala Glu Ala His
 145 150 155 160
 Gln Asp Leu Arg Thr Lys Gly Tyr Ala
 165

<210> 1833
 <211> 430
 <212> DNA
 <213> Homo sapiens

<400> 1833
 acgcgtgcga tgttgaagga ggcgttcggc atcgggcatg cgacgctgca ggttgaactg
 60
 tccggtgccg aggcagacga tgccgaggcg ggcggctgct aagggtcgcc gtcgttcagt
 120
 ggcgcaaagc ggcgatgatc gcgtcgaaca gcgttactcc agccagcggg ccaaccaaca
 180
 gcatcaccag gttgaaaccg atgatccacg ccgcgatgct ttctcggcgc gggtttggca
 240
 gcggcttggg ctccgcttcc cagcgttccg gcggcgccca gccattttgg aaatcgacga
 300

acatctccgg cgctcctgct gtcaggcgct gaaggatcg aaagtcatgc gccgtgacaa
 360
 aggaagatcg gcgacacagg agccgaagcg ccgccgectg caataagcgc gcgcgatcgc
 420
 aattgtcggg
 430

<210> 1834
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 1834
 Met Arg Arg Cys Arg Leu Asn Cys Pro Val Pro Arg Gln Thr Met Pro
 1 5 10 15
 Arg Arg Ala Ala Ala Lys Gly Arg Arg Arg Ser Val Ala Gln Ser Gly
 20 25 30
 Asp Asp Arg Val Glu Gln Arg Tyr Ser Ser Gln Arg Ala Asn Gln Gln
 35 40 45
 His His Gln Val Glu Thr Asp Asp Pro Arg Arg Asp Ala Phe Ser Ala
 50 55 60
 Arg Val Trp Gln Arg Leu Gly Leu Gly Phe Pro Ala Phe Arg Arg Arg
 65 70 75 80
 Pro Ala Ile Leu Glu Ile Asp Glu His Leu Arg Arg Ser Cys Cys Gln
 85 90 95
 Ala Leu Lys Val Ser Lys Val Met Arg Arg Asp Lys Gly Arg Ser Ala
 100 105 110
 Thr Gln Glu Pro Lys Arg Arg Arg Leu Gln
 115 120

<210> 1835
 <211> 677
 <212> DNA
 <213> Homo sapiens

<400> 1835
 nataactcaag gactttgacg gcacccgagc ccggttgctc cctgaggcca tcatgaaccc
 60
 cccagtggca ccctatgcta ctgtggcacc cagcacttta gccaccccc aggcccaggc
 120
 tctggcccgc cagcaggccc tgcagcatgc acagaccctg gcccatgccc ctccccagac
 180
 gctgcagcac cctcagggtta tcccgccacc ccaggcactg tcccaccctc agagcctcca
 240
 gcagcctcag ggcctgggcc accctcagcc catggcccaa acccagggtt tgggtccaccc
 300
 tcaggccctg gctcaccagg gtctccagca cccccacaat cccttgctgc atggaggccg
 360
 gaagatgcca gactcagatg ccccccgaa tgtgaccgtg tctacctcaa ctatccccct
 420
 ttcaatggcg gccactctgc agcacagcca gcctccggac ctgagtagca tcgtgcacca
 480
 gatcaaccag ttttgccaga cgagggcagg catcagcact acctcagtgt gtgagggccca
 540

gategccaac cccagcccca ttagtcgcag tctgctcatc aatgcaagca cccgggtgtc
 600
 gaccacagc gtccccacac caatgccttc atgtgtgggc aatcccatgg agcacaccca
 660
 cgcgccacc gccgcgg
 677

<210> 1836
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 1836
 Gly His His Glu Pro Pro Ser Gly Thr Leu Cys Tyr Cys Gly Thr Gln
 1 5 10 15
 His Phe Ser Pro Pro Pro Gly Pro Gly Ser Gly Pro Pro Ala Gly Pro
 20 25 30
 Ala Ala Cys Thr Asp Pro Gly Pro Cys Pro Ser Pro Asp Ala Ala Ala
 35 40 45
 Pro Ser Gly Tyr Pro Ala Thr Pro Gly Thr Val Pro Pro Ser Glu Pro
 50 55 60
 Pro Ala Ala Ser Gly Pro Gly Pro Pro Ser Ala His Gly Pro Asn Pro
 65 70 75 80
 Gly Leu Gly Pro Pro Ser Gly Pro Gly Ser Pro Gly Ser Pro Ala Pro
 85 90 95
 Pro Gln Ser Leu Ala Ala Trp Arg Pro Glu Asp Ala Arg Leu Arg Cys
 100 105 110
 Pro Pro Glu Cys Asp Arg Val Tyr Leu Asn Tyr Pro Pro Phe Asn Gly
 115 120 125
 Gly His Ser Ala Ala Gln Pro Ala Ser Gly Pro Glu
 130 135 140

<210> 1837
 <211> 564
 <212> DNA
 <213> Homo sapiens

<400> 1837
 nntctagaac actctgcccc tgaatctgta cggggattgt ttggcccgtc acgaactcgt
 60
 acggctcgata tcaatatcac tgggttttct tcacagtatt taccgcccc ctatggacca
 120
 attgctgcgg acgtcaaaca aacctgggcg tgggaccac aggatctgac gattgtctca
 180
 atttctgctg atcacgacca taacctccga tatgcagtac agcatttcgg cgcaagcccc
 240
 accccgatcc agtaaccttc gataacgcga aagccggcac cccacataac tcgngtgtac
 300
 accgaagtcc ctgccaaagt tccatccgac ataggggagt taactaacgg aattatcaag
 360
 gggaaatcta cccccgtaac caaggccatc gcgattcaaa actgggttcg tgacagcgct
 420
 cgattccatt acgacatcaa cgcacccgaa ggtgacggct atcaggtact ggaaaacttc
 480

ctgctgcaca cccaccgcgg ttattgcac catttcgcgg cgtcaatggc actcatggca

540

cgacttgaag gtattccgtc acgc

564

<210> 1838

<211> 84

<212> PRT

<213> Homo sapiens

<400> 1838

Xaa	Leu	Glu	His	Ser	Ala	Pro	Glu	Ser	Val	Pro	Gly	Leu	Phe	Gly	Pro
1				5					10					15	
Ser	Arg	Thr	Arg	Thr	Val	Asp	Ile	Asn	Ile	Thr	Gly	Phe	Ser	Ser	Gln
			20					25					30		
Tyr	Leu	Pro	Ala	Pro	Tyr	Gly	Pro	Ile	Ala	Ala	Asp	Val	Lys	Gln	Thr
			35					40					45		
Trp	Ala	Trp	Asp	Pro	Gln	Asp	Leu	Thr	Ile	Val	Ser	Thr	Ser	Ala	Asp
			50				55				60				
His	Asp	His	Asn	Leu	Arg	Tyr	Ala	Val	Gln	His	Phe	Gly	Ala	Ser	Pro
65					70					75					80
Thr	Pro	Ile	Gln												

<210> 1839

<211> 300

<212> DNA

<213> Homo sapiens

<400> 1839

ncaatacggc tgaacaccgc tgatatcacc cgtactttcc ccgtcaacgg aaaattttcc
60
gaagttcagg caaaggctta tcaggcgggtg ctggacgctg cagatgcggc atttaaggca
120
gccgttcctg gcaataaatt ccgcgacgtc catgctgcag cgatgaatgt tctcgctctcc
180
cgccttgagg actggggggt tatgcccgtc agcgcgaagg tcgctctttc ggacgagggc
240
gggcaacacc gtcgttggat gccgcacggc accagccacc atctagggtt ggatgtgcac
300

<210> 1840

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1840

Xaa	Ile	Arg	Leu	Asn	Thr	Ala	Asp	Ile	Thr	Arg	Thr	Phe	Pro	Val	Asn
1				5					10					15	
Gly	Lys	Phe	Ser	Glu	Val	Gln	Ala	Lys	Ala	Tyr	Gln	Ala	Val	Leu	Asp
			20					25					30		
Ala	Ala	Asp	Ala	Ala	Phe	Lys	Ala	Ala	Val	Pro	Gly	Asn	Lys	Phe	Arg
			35				40					45			
Asp	Val	His	Ala	Ala	Ala	Met	Asn	Val	Leu	Ala	Ser	Arg	Leu	Glu	Asp

50 55 60
 Trp Gly Leu Met Pro Val Ser Ala Lys Val Ala Leu Ser Asp Glu Gly
 65 70 75 80
 Gly Gln His Arg Arg Trp Met Pro His Gly Thr Ser His His Leu Gly
 85 90 95
 Leu Asp Val His
 100

<210> 1841
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 1841
 nntccaaga acgtcccga gtggggcccc agggcgctcg aactccccgg cgggcccggg
 60
 gtcgatccgg tggtcgagat cggcgggtccc ggtacgctag cccaatcgat ggtcgccccg
 120
 cgcgtcggcg cccatgtcgc cttgatcggc gtgcttnacg gggattgtcg ggcggtgagg
 180
 acggcgctgc tgatgagcaa gaatctgcgc gtgcaagggc tgccgggtcgg cagccgcgcg
 240
 cagcaactcg cgatgatcgc ggggggtcgag gegaacggca tccgtccgat cctcgaccag
 300
 catttcccgc tcgaaaatct ccccgacgcg
 330

<210> 1842
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 1842
 Xaa Ser Lys Asn Val Pro Glu Trp Gly Pro Arg Ala Leu Glu Leu Pro
 1 5 10 15
 Gly Gly Pro Gly Val Asp Pro Val Val Glu Ile Gly Gly Pro Gly Thr
 20 25 30
 Leu Ala Gln Ser Met Val Ala Pro Arg Val Gly Ala His Val Ala Leu
 35 40 45
 Ile Gly Val Leu Xaa Gly Asp Cys Arg Ala Val Arg Thr Ala Leu Leu
 50 55 60
 Met Ser Lys Asn Leu Arg Val Gln Gly Leu Pro Val Gly Ser Arg Ala
 65 70 75 80
 Gln Gln Leu Ala Met Ile Ala Gly Val Glu Ala Asn Gly Ile Arg Pro
 85 90 95
 Ile Leu Asp Gln His Phe Pro Leu Glu Asn Leu Pro Asp Ala
 100 105 110

<210> 1843
 <211> 473
 <212> DNA
 <213> Homo sapiens

<400> 1843

aagctttggc atctccagca aaagatgtgc tatttactga taccatcacc atgaaggcca
 60
 acagttttga gtccagatta acaccaagca ggttcatgaa agccttaagt tatgcatcat
 120
 tagataaaga agattttattg agtcctatta atcaaaatac cctgcaacga tcttcctcag
 180
 tgcggtccat ggtgtccagt gccacatatg ggggttcaga tgattacatt ggtcttgc
 240
 tcccgggtgga tataaatgat atattccagg taaaggatat tccctatttt cagacaaaaa
 300
 acataccacc acatgatgat cgagggtgcaa gagcatttgc ccatgatgca ggagggtctc
 360
 catctggaac tggagggtctt gtaaaaaatt cttttcactt gctacgacag cagatgagtc
 420
 ttacggaaat aatgaattca atccattcag atgcctctcn cnnccnccccc ccc
 473

<210> 1844

<211> 141

<212> PRT

<213> Homo sapiens

<400> 1844

Met	Lys	Ala	Asn	Ser	Phe	Glu	Ser	Arg	Leu	Thr	Pro	Ser	Arg	Phe	Met
1				5					10					15	
Lys	Ala	Leu	Ser	Tyr	Ala	Ser	Leu	Asp	Lys	Glu	Asp	Leu	Leu	Ser	Pro
		20						25				30			
Ile	Asn	Gln	Asn	Thr	Leu	Gln	Arg	Ser	Ser	Ser	Val	Arg	Ser	Met	Val
	35					40					45				
Ser	Ser	Ala	Thr	Tyr	Gly	Gly	Ser	Asp	Asp	Tyr	Ile	Gly	Leu	Ala	Leu
	50				55					60					
Pro	Val	Asp	Ile	Asn	Asp	Ile	Phe	Gln	Val	Lys	Asp	Ile	Pro	Tyr	Phe
65			70						75					80	
Gln	Thr	Lys	Asn	Ile	Pro	Pro	His	Asp	Asp	Arg	Gly	Ala	Arg	Ala	Phe
			85					90					95		
Ala	His	Asp	Ala	Gly	Gly	Leu	Pro	Ser	Gly	Thr	Gly	Gly	Leu	Val	Lys
	100					105					110				
Asn	Ser	Phe	His	Leu	Leu	Arg	Gln	Gln	Met	Ser	Leu	Thr	Glu	Ile	Met
	115					120					125				
Asn	Ser	Ile	His	Ser	Asp	Ala	Ser	Xaa	Xaa	Xaa	Xaa	Pro			
	130					135					140				

<210> 1845

<211> 390

<212> DNA

<213> Homo sapiens

<400> 1845

aagcttacga cgcctagctt tggagacctg aaccacttga tcagtgcac aatgagtggg
 60
 gtgacttgct gcctccgctt cccggggcag ctcaactcgg accttcggaa acttgcaagt
 120
 aacctgattc cattccctcg cctgcacttt tttatggctg gctttgcgcc actcacctcg
 180

cgtaggctccc agcagtaccg tgctctcact gtccttgagc tgacccagca gatgtgggac
 240
 tccaagaaca tgatgtgtgc tgctgacccg cgatcatggcc gctacctcac agtatctgccc
 300
 atgttccgtg gaaagatgag caccaaggag gtggacgagc agatgctgaa cgtgcagaac
 360
 aagaactctt cctacttcgt ggagtggatc
 390

<210> 1846
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 1846
 Lys Leu Thr Thr Pro Ser Phe Gly Asp Leu Asn His Leu Ile Ser Ala
 1 5 10 15
 Thr Met Ser Gly Val Thr Cys Cys Leu Arg Phe Pro Gly Gln Leu Asn
 20 25 30
 Ser Asp Leu Arg Lys Leu Ala Val Asn Leu Ile Pro Phe Pro Arg Leu
 35 40 45
 His Phe Phe Met Val Gly Phe Ala Pro Leu Thr Ser Arg Gly Ser Gln
 50 55 60
 Gln Tyr Arg Ala Leu Thr Val Pro Glu Leu Thr Gln Gln Met Trp Asp
 65 70 75 80
 Ser Lys Asn Met Met Cys Ala Ala Asp Pro Arg His Gly Arg Tyr Leu
 85 90 95
 Thr Val Ser Ala Met Phe Arg Gly Lys Met Ser Thr Lys Glu Val Asp
 100 105 110
 Glu Gln Met Leu Asn Val Gln Asn Lys Asn Ser Ser Tyr Phe Val Glu
 115 120 125
 Trp Ile
 130

<210> 1847
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 1847
 cagccgtgct ttcctgcgct aactcgggaa cggctatatc ggcagatcc aacagttcca
 60
 tggctcgaag agtagtaaaa atatcaataa ctggcagagc atcgcgtcaa gctggcgacc
 120
 ctggccgcgc cgcggttggc cgatcacgcc atgttggagc aggccttcca gctgttccag
 180
 caaaaaagtt gcggacaatc tcctgccgga tggctcgggtg ttcgacttca gggagcgcca
 240
 tgcaactgac tacgtcgtct atgacctgga gccgctgggt caggcggccc tggcgggcaa
 300
 gccctaacgg tggcaactgg ctgacttaca ccgccccac cgn
 343

<210> 1848

<211> 94
 <212> PRT
 <213> Homo sapiens

<400> 1848
 Met Ala Arg Arg Val Val Lys Ile Ser Ile Thr Gly Arg Ala Ser Arg
 1 5 10 15
 Gln Ala Gly Asp Pro Gly Arg Arg Arg Val Gly Arg Ser Arg His Val
 20 25 30
 Gly Ala Gly Leu Pro Ala Val Pro Ala Lys Lys Leu Arg Thr Ile Ser
 35 40 45
 Cys Arg Met Ala Arg Cys Ser Thr Ser Gly Ser Ala Met His Cys Thr
 50 55 60
 Thr Ser Ser Met Thr Trp Ser Arg Trp Phe Arg Arg Pro Trp Arg Ala
 65 70 75 80
 Ser Pro Asn Gly Gly Asn Trp Leu Thr Tyr Thr Ala Pro Thr
 85 90

<210> 1849
 <211> 390
 <212> DNA
 <213> Homo sapiens

<400> 1849
 cggaagaac aggttcagca aagagcaata gaatgttccc gggctctcag tgcgattctt
 60
 gacattgaac atggagaccc aaaagagaat gtactagggt cagcttttga catgaaacag
 120
 ctgaaggatg ctattgatga gactaaaata gctttgatgg gacattcttt tggaggagca
 180
 acagttcttc aagcccttag tgaggaccag agattcagat gtggagttgc tcttgatcca
 240
 tggatgtatc cggatgaacga agagctgtac tccagaaccc tccagcctct cctctttatc
 300
 aactctgcc aattccagac tccaaaggac atcgcaaaaa tgaaaaagtt ctaccagcct
 360
 gacaaggaaa ggaaanatga ttacaatcaa
 390

<210> 1850
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 1850
 Arg Lys Glu Gln Val Gln Gln Arg Ala Ile Glu Cys Ser Arg Ala Leu
 1 5 10 15
 Ser Ala Ile Leu Asp Ile Glu His Gly Asp Pro Lys Glu Asn Val Leu
 20 25 30
 Gly Ser Ala Phe Asp Met Lys Gln Leu Lys Asp Ala Ile Asp Glu Thr
 35 40 45
 Lys Ile Ala Leu Met Gly His Ser Phe Gly Gly Ala Thr Val Leu Gln
 50 55 60
 Ala Leu Ser Glu Asp Gln Arg Phe Arg Cys Gly Val Ala Leu Asp Pro

65					70					75				80	
Trp	Met	Tyr	Pro	Val	Asn	Glu	Glu	Leu	Tyr	Ser	Arg	Thr	Leu	Gln	Pro
				85					90					95	
Leu	Leu	Phe	Ile	Asn	Ser	Ala	Lys	Phe	Gln	Thr	Pro	Lys	Asp	Ile	Ala
			100					105					110		
Lys	Met	Lys	Lys	Phe	Tyr	Gln	Pro	Asp	Lys	Glu	Arg	Lys	Xaa	Asp	Tyr
		115					120					125			
Asn	Gln														
	130														

<210> 1851

<211> 574

<212> DNA

<213> Homo sapiens

<400> 1851

```

ncgatcggag aggccttccg cactggtgac ttggactcta agcccgaccc cagccggagc
60
ttcaggcctt accgagctga agacaatgat tcctatgcct ctgagatcaa ggagctgcag
120
ctggtgctgg ctgaggccca cgacagcctc cggggcttgc aagagcagct ctcccaggag
180
cggcagctac gaaaggagga ggccgacaat ttcaaccaga aaatggtcca gctgaaggag
240
gaccagcaga gggcgctcct gaggcgggag tttgagctgc agagtctgag cctccagcgg
300
aggetggagc agaaattctg gagccaggag aagaacatgc tgggtgcagga gtcccagcaa
360
ttcaagcaca acttcctgct gctcttcctg aagctcaggt ggttcctcaa gcgctggcgg
420
caggggcaagg ttttgcccag cgaaggggat gacttcctcg aggtgaacag catgaaggac
480
ctgtacttgc tgatggagga agacgagata aacgctcagc attctgataa caaggcctgc
540
acgggggaca gctggaccca gaacacgccc aatg
574

```

<210> 1852

<211> 191

<212> PRT

<213> Homo sapiens

<400> 1852

Xaa	Ile	Gly	Glu	Ala	Phe	Arg	Thr	Gly	Asp	Leu	Asp	Ser	Lys	Pro	Asp
1				5				10					15		
Pro	Ser	Arg	Ser	Phe	Arg	Pro	Tyr	Arg	Ala	Glu	Asp	Asn	Asp	Ser	Tyr
			20					25					30		
Ala	Ser	Glu	Ile	Lys	Glu	Leu	Gln	Leu	Val	Leu	Ala	Glu	Ala	His	Asp
		35					40				45				
Ser	Leu	Arg	Gly	Leu	Gln	Glu	Gln	Leu	Ser	Gln	Glu	Arg	Gln	Leu	Arg
	50				55				60						
Lys	Glu	Glu	Ala	Asp	Asn	Phe	Asn	Gln	Lys	Met	Val	Gln	Leu	Lys	Glu
65				70				75					80		
Asp	Gln	Gln	Arg	Ala	Leu	Leu	Arg	Arg	Glu	Phe	Glu	Leu	Gln	Ser	Leu


```

<400> 1854
Met Pro His Pro Pro Trp Lys Arg Cys Arg Ser Ala Thr Ser Leu Arg
 1          5          10          15
Ser Ala Pro Ser Lys Leu Thr Cys Ser Ser Ala Arg Ser Ile His Ser
          20          25          30
Ser Leu Arg Arg Ala Trp His Phe Cys Ala Ser Arg Thr Thr Trp Met
          35          40          45
Ala Arg Ser Ala Arg Arg Phe Thr Trp Met Thr Met Ser Phe Leu Ser
          50          55          60
Arg His Arg Ser Ser Ala Gln Pro Arg Ala Ser Asp Ser Asn Thr Ser
65          70          75          80
Pro Ser Leu Trp Pro Ser Cys Ser Ser Ala Leu Leu His Arg Ile His
          85          90          95
Ile Pro Lys Leu
          100

```


<210> 1855
 <211> 429
 <212> DNA
 <213> Homo sapiens

<400> 1855
 gcgtccttcg cgtacgtgga cgagggcggg caggtgttcg tccagtgcag caccagcac
 60
 ccgagcgaaa cgcaggaaat cgtggcgac gtcttgacc tggacaacca cgaggtcacg
 120
 gtgcagtgtc tgcgcattgg cggtggcttt ggcggttaagg aaatgcagcc gcacgggttc
 180
 gccgcgatcg cagcactcgg cgcgaccctg accgggacgac cggttcgact gcgactgacc
 240
 cgaaaccagg acatcaccat ctccggaag cgccacccat acctcgcgga gtgggacgtg
 300
 gccttcgacg acgacggccg cctccaggct ctgcgcgcca ccgtcaccag cgacggcggg
 360
 tggagcctgg acctctcgga gccggtgatg cagcggacgg tgtgtcacat cgataactcc
 420
 tattggatc
 429

<210> 1856
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 1856
 Ala Ser Phe Ala Tyr Val Asp Glu Gly Gly Gln Val Phe Val Gln Cys
 1 5 10 15
 Ser Thr Gln His Pro Ser Glu Thr Gln Glu Ile Val Ala His Val Leu
 20 25 30
 Asp Leu Asp Asn His Glu Val Thr Val Gln Cys Leu Arg Met Gly Gly
 35 40 45
 Gly Phe Gly Gly Lys Glu Met Gln Pro His Gly Phe Ala Ala Ile Ala
 50 55 60
 Ala Leu Gly Ala Thr Leu Thr Gly Arg Pro Val Arg Leu Arg Leu Thr
 65 70 75 80
 Arg Asn Gln Asp Ile Thr Ile Ser Gly Lys Arg His Pro Tyr Leu Ala
 85 90 95
 Glu Trp Asp Val Ala Phe Asp Asp Asp Gly Arg Leu Gln Ala Leu Arg
 100 105 110
 Ala Thr Val Thr Ser Asp Gly Gly Trp Ser Leu Asp Leu Ser Glu Pro
 115 120 125
 Val Met Gln Arg Thr Val Cys His Ile Asp Asn Ser Tyr Trp Ile
 130 135 140

<210> 1857
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 1857

gtgcacgccg ctgccccagc cgtcgccctac cgatcaacag acgcagccgc cgtgcgttga
60
gataccagcc gagcacgac atgctcagca tggtcagcag cagccagaac ggaaatcgca
120
gcaggcgctc gaacagctca ctgccaccca gcaccagcgg gattgccccg gccacgacca
180
gtgcgcccag gagcagccac catcgcccg ccatgctgcg gcaactcgata ccaatacgtt
240
gcgcttcaac caatcgatct tggtcgagggc atgccgcca tcttccaaca ggcgagtcac
300
cagactcagc cagtaacacc gcgaaaaatc gtggcgcatg tcgacagggg gcaaaccgag
360
acgcagcacg ggtgcctgtc ggtggcgggc gag
393

<210> 1858

<211> 104

<212> PRT

<213> Homo sapiens

<400> 1858

Met	Leu	Ser	Met	Val	Ser	Ser	Ser	Gln	Asn	Gly	Asn	Arg	Ser	Arg	Arg
1				5					10					15	
Ser	Asn	Ser	Ser	Leu	Pro	Pro	Ser	Thr	Ser	Gly	Ile	Ala	Pro	Ala	Thr
				20				25						30	
Thr	Ser	Ala	Pro	Arg	Ser	Ser	His	His	Arg	Pro	Leu	Met	Leu	Arg	His
				35			40					45			
Ser	Ile	Pro	Ile	Arg	Cys	Ala	Ser	Thr	Asn	Arg	Ser	Trp	Ser	Arg	His
				50			55					60			
Ala	Ala	His	Leu	Pro	Thr	Gly	Glu	Ser	Pro	Asp	Ser	Ala	Ser	Asn	Thr
65					70					75				80	
Ala	Lys	Asn	Arg	Gly	Ala	Cys	Arg	Gln	Gly	Ala	Asn	Arg	Asp	Ala	Ala
				85					90					95	
Arg	Val	Pro	Val	Gly	Gly	Gly	Arg								
				100											

<210> 1859

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1859

nagatctggc gcctcgtcac caacttcctc tacttccgca agatggattt ggattttctg
60
ttccacatgt tttttctcgc acgatactgc aagcttctgg aggagaactc atttagagga
120
agaactgccg acttttttta catgctcttg tttggtgcta ctgtcctaac tagcattggt
180
ctgatcggag ggatgatacc ttacatttcc gagacatttg ccagaattct gttcctgagc
240
aattcattga cgtttatgat ggtttatgtc tggagcaagc acaatcctat catccatag
300
agcaatctgg gcctgttcac ctttacggct gcatacttac catgg
345

<210> 1860
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 1860
 Xaa Ile Trp Arg Leu Val Thr Asn Phe Leu Tyr Phe Arg Lys Met Asp
 1 5 10 15
 Leu Asp Phe Leu Phe His Met Phe Phe Leu Ala Arg Tyr Cys Lys Leu
 20 25 30
 Leu Glu Glu Asn Ser Phe Arg Gly Arg Thr Ala Asp Phe Phe Tyr Met
 35 40 45
 Leu Leu Phe Gly Ala Thr Val Leu Thr Ser Ile Val Leu Ile Gly Gly
 50 55 60
 Met Ile Pro Tyr Ile Ser Glu Thr Phe Ala Arg Ile Leu Phe Leu Ser
 65 70 75 80
 Asn Ser Leu Thr Phe Met Met Val Tyr Val Trp Ser Lys His Asn Pro
 85 90 95
 Ile Ile His Met Ser Asn Leu Gly Leu Phe Thr Phe Thr Ala Ala Tyr
 100 105 110
 Leu Pro Trp
 115

<210> 1861
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 1861
 gcgttgactg tagtgagtga cgaagctgat atacaaaatg cgccggggcgt tagaaaagcc
 60
 aatagtgagc ttcattcagt cggcttaggt gttatgaact tacatggcta tcttgctaaa
 120
 aacaaaattg gctatgagtc ggaagaagct aaagattttg ctaatatatt ctttatgatg
 180
 atgaattact attcacttga aagatcaatg caaatagcaa agaaaagaca ggaaacgttt
 240
 aaagactttg ataagtcaga ttatgcaaat ggaaaatatt tcgaatttta tacttcgcaa
 300
 tcatttgaac cgaaatacga aaaagtacgt aaattatttg atggttttaga aatcccaacg
 360
 cctgaagatt ggaaagcatt gcaaaaagaa gttgaaactc acggtttatt ccatgcttat
 420
 cgtttagcga ttgca
 435

<210> 1862
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 1862
 Ala Leu Thr Val Val Ser Asp Glu Ala Asp Ile Gln Asn Ala Pro Gly


```

      1           5           10           15
Val Arg Lys Ala Asn Ser Glu Leu His Ser Val Gly Leu Gly Val Met
      20           25           30
Asn Leu His Gly Tyr Leu Ala Lys Asn Lys Ile Gly Tyr Glu Ser Glu
      35           40           45
Glu Ala Lys Asp Phe Ala Asn Ile Phe Phe Met Met Met Asn Tyr Tyr
      50           55           60
Ser Leu Glu Arg Ser Met Gln Ile Ala Lys Glu Arg Gln Glu Thr Phe
      65           70           75           80
Lys Asp Phe Asp Lys Ser Asp Tyr Ala Asn Gly Lys Tyr Phe Glu Phe
      85           90           95
Tyr Thr Ser Gln Ser Phe Glu Pro Lys Tyr Glu Lys Val Arg Lys Leu
      100          105          110
Phe Asp Gly Leu Glu Ile Pro Thr Pro Glu Asp Trp Lys Ala Leu Gln
      115          120          125
Lys Glu Val Glu Thr His Gly Leu Phe His Ala Tyr Arg Leu Ala Ile
      130          135          140
Ala
145

```

<210> 1863

<211> 792

<212> DNA

<213> Homo sapiens

<400> 1863

```

nggatcctca cgcccgccat catacgtggg atatcggtga gcaaatgcgt catgacgggg
60
tctccgtcgt gctcactacc cacaacatgg atgaggctca acggctgggt gatcacgtct
120
ggatcgtcga tcgcggcagg gtcgcaactc atggaactgt gccagagctc accgctgagt
180
cgagtttggg agatgtgttc ctcaactcaca ctagtgaccg cgcagcaggg aggaattgac
240
atgacgacac tcgatctccg ccccgcacct caggccgcac cggctgctgc acgcgtgcgt
300
aaccagctc tcaccgaggt gcgtctggtg atgcgcaacg gtgagcagct gctactagct
360
ctcgtcattc ccacgaggat catcgctgcc gggcgcttcc tgggcggccg ggtcggactg
420
acgatggacg tcttagcacc ctcaagtctg gcgctcgcca tctggtcgac atgtttcact
480
tcccaagcga tcatgaccgg ttttgaacgc cgttacgggg tgctcgaacg attgtccgca
540
accccggttag gtcggtcggg tctgctagct ggcaaggcga tggcttattc cgttatcagt
600
ctcgctcagg tgatactgct tgtcatcatc tcttttagcgc tgggctggca cccccacggt
660
tccggcctgg cctggctccc aaccctggtg agcgttgtgc tcgccatgat gacattcggg
720
ctcgcagcac tggcaatggc cggcgctggc aaagctgaag tcactctcgg actggccaac
780
ttggtataca tc
792

```


<210> 1864
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 1864
 Xaa Ile Leu Thr Pro Ala Ile Ile Arg Gly Ile Ser Leu Ser Lys Cys
 1 5 10 15
 Val Met Thr Gly Ser Pro Ser Cys Ser Leu Pro Thr Thr Trp Met Arg
 20 25 30
 Leu Asn Gly Trp Leu Ile Thr Ser Gly Ser Ser Ile Ala Ala Gly Ser
 35 40 45
 Gln Leu Met Glu Leu Cys Gln Ser Ser Pro Leu Ser Arg Val Trp Lys
 50 55 60
 Met Cys Ser Ser Leu Thr Leu Val Thr Ala Gln Gln Gly Gly Ile Asp
 65 70 75 80
 Met Thr Thr Leu Asp Leu Arg Pro Ala Pro Gln Ala Ala Pro Ala Ala
 85 90 95
 Ala Arg Val Arg Asn His Ala Leu Thr Glu Val Arg Leu Val Met Arg
 100 105 110
 Asn Gly Glu Gln Leu Leu Leu Ala Leu Val Ile Pro Ile Gly Ile Ile
 115 120 125
 Val Ala Gly Arg Phe Leu Gly Gly Arg Val Gly Leu Thr Met Asp Val
 130 135 140
 Leu Ala Pro Ser Val Leu Ala Leu Ala Ile Trp Ser Thr Cys Phe Thr
 145 150 155 160
 Ser Gln Ala Ile Met Thr Gly Phe Glu Arg Arg Tyr Gly Val Leu Glu
 165 170 175
 Arg Leu Ser Ala Thr Pro Leu Gly Arg Ser Gly Leu Leu Ala Gly Lys
 180 185 190
 Ala Met Ala Tyr Ser Val Ile Ser Leu Ala Gln Val Ile Leu Leu Val
 195 200 205
 Ile Ile Ser Leu Ala Leu Gly Trp His Pro His Gly Ser Gly Leu Ala
 210 215 220
 Trp Leu Pro Thr Leu Val Ser Val Val Leu Ala Met Met Thr Phe Gly
 225 230 235 240
 Leu Ala Ala Leu Ala Met Ala Gly Ala Gly Lys Ala Glu Val Thr Leu
 245 250 255
 Gly Leu Ala Asn Leu Val Tyr Ile
 260

<210> 1865
 <211> 717
 <212> DNA
 <213> Homo sapiens

<400> 1865
 ngccggctga tcaaacaact cacagacatg ggcttcccga gagagccagc tgaggaggcc
 60
 ttgaagagta acaatatgaa tcttgatcag gccatgagcg ctctgctgga aaagaagggtg
 120
 gacgtggaca agcgtgggct gggagtgacc gaccataatg gaatggccgc caagcccctc
 180

ggctgccgcc cgccaatctc caaagagtct tccgtggacc gccccaccct tcttgacaag
 240
 gatggcggcc tcgtggaaga gcccacgcct tcaccgttct tgccttcccc aagcctgaag
 300
 ctcccccttt cacacagtgc actccccagt caggccctgg gtgggggtgc ctccgggctg
 360
 ggcatgcaaa acttgaattc ttctagacag ataccgagtg gcaatctggg tatgtttggc
 420
 aatagtggag cagcacaagc caggaccatg cagcagccgc cacagccacc agtgcagcct
 480
 cttaactctt cccagcccag tctccgtgct caagtgcctc agtttctatc ccctcaggtt
 540
 caagcacagc ttttgagtt tgcagcaaaa aacattggtc tcaaccctgc actattaacc
 600
 tcgccaatta atcctcaaca tatgacgatg ttgaaccagc tctatcagct gcagctggca
 660
 taccaacggt tacaaatcca gcagcagatg ttacaggccc agcgtaatgt gtccgga
 717

<210> 1866

<211> 239

<212> PRT

<213> Homo sapiens

<400> 1866

Xaa	Arg	Leu	Ile	Lys	Gln	Leu	Thr	Asp	Met	Gly	Phe	Pro	Arg	Glu	Pro
1				5					10					15	
Ala	Glu	Glu	Ala	Leu	Lys	Ser	Asn	Asn	Met	Asn	Leu	Asp	Gln	Ala	Met
			20					25					30		
Ser	Ala	Leu	Leu	Glu	Lys	Lys	Val	Asp	Val	Asp	Lys	Arg	Gly	Leu	Gly
		35					40					45			
Val	Thr	Asp	His	Asn	Gly	Met	Ala	Ala	Lys	Pro	Leu	Gly	Cys	Arg	Pro
	50					55					60				
Pro	Ile	Ser	Lys	Glu	Ser	Ser	Val	Asp	Arg	Pro	Thr	Leu	Leu	Asp	Lys
65					70				75					80	
Asp	Gly	Gly	Leu	Val	Glu	Glu	Pro	Thr	Pro	Ser	Pro	Phe	Leu	Pro	Ser
				85					90					95	
Pro	Ser	Leu	Lys	Leu	Pro	Leu	Ser	His	Ser	Ala	Leu	Pro	Ser	Gln	Ala
			100					105						110	
Leu	Gly	Gly	Val	Ala	Ser	Gly	Leu	Gly	Met	Gln	Asn	Leu	Asn	Ser	Ser
			115				120					125			
Arg	Gln	Ile	Pro	Ser	Gly	Asn	Leu	Gly	Met	Phe	Gly	Asn	Ser	Gly	Ala
	130					135					140				
Ala	Gln	Ala	Arg	Thr	Met	Gln	Gln	Pro	Pro	Gln	Pro	Pro	Val	Gln	Pro
145					150					155				160	
Leu	Asn	Ser	Ser	Gln	Pro	Ser	Leu	Arg	Ala	Gln	Val	Pro	Gln	Phe	Leu
				165					170					175	
Ser	Pro	Gln	Val	Gln	Ala	Gln	Leu	Leu	Gln	Phe	Ala	Ala	Lys	Asn	Ile
			180				185						190		
Gly	Leu	Asn	Pro	Ala	Leu	Leu	Thr	Ser	Pro	Ile	Asn	Pro	Gln	His	Met
	195						200					205			
Thr	Met	Leu	Asn	Gln	Leu	Tyr	Gln	Leu	Gln	Leu	Ala	Tyr	Gln	Arg	Leu
	210					215					220				
Gln	Ile	Gln	Gln	Gln	Met	Leu	Gln	Ala	Gln	Arg	Asn	Val	Ser	Gly	

225

230

235

<210> 1867

<211> 518

<212> DNA

<213> Homo sapiens

<400> 1867

nnggggcacg gtagggcca gtgggcagag gggtaggga tatgcaggac cttccactgt
 60
 tccatgcatg ggacggcact tgggtccgcg atcaggtagc caggcatgga aggaacatgg
 120
 gaggaaggga actgtctggt gcgccagtgt tgttcaagga ggatgtgaca agacaggcca
 180
 tctggttggc tggccctggt acccaacaac gtgggtggcca aggccttggtg cccggagagg
 240
 ttcttggggg ccagcagggg gctacatagg acatgggtgg ggaccccagc tccgagccca
 300
 cctctectgc ctccaccct tccaccnng cagccccgc ctctcccga gaactctccc
 360
 caagccagac cgcctggacc ggctgcttaa gtcaggcttt gggacatacc ctgggaggaa
 420
 gcgaggtgct ttgcaccccc aagtgatcat gttcccgtgc ccagcctgcc aaggtgatgt
 480
 ggagcttggg gagcgggggc tggcagggt tttccgga
 518

<210> 1868

<211> 73

<212> PRT

<213> Homo sapiens

<400> 1868

Gln Asp Arg Pro Ser Gly Trp Leu Ala Leu Leu Pro Asn Asn Val Val
 1 5 10 15
 Ala Lys Ala Leu Cys Pro Glu Arg Phe Leu Gly Ala Ser Arg Gly Leu
 20 25 30
 His Arg Thr Trp Val Gly Thr Pro Ala Pro Ser Pro Pro Leu Leu Pro
 35 40 45
 Pro Pro Leu Pro Pro Xaa Gln Pro Pro Pro Leu Pro Gln Asn Ser Pro
 50 55 60
 Gln Ala Arg Pro Pro Gly Pro Ala Ala
 65 70

<210> 1869

<211> 436

<212> DNA

<213> Homo sapiens

<400> 1869

acgcgtcacc ttctgtctgg agctactggg agccctcgga cacctgcgtg cattgcccga
 60
 ccgtgacatg ccgagcaccg aaaccacact gtggattcgc gagctgagcc gcatcgaccg
 120

cgacgtgtcg actgccaccc actttcgttg gagcgacgac ggcaccgtgc taggtcagac
 180
 gaccgacgat ggcaccgagc ctgaggttgt tgccctgcc a gcggtctact gccgtcgttg
 240
 cggccgcagc ggatggggag tccagctcgc cagcaccggc aataacctca gcgagaacaa
 300
 cgacagcatc cgacggaccc acgcggcaca cgacggctgc ttccgagcct tgctttcggc
 360
 ccctcgagag ggagccagcg cggtcgacac cggcgaggcg aactgtcct tacgtgtggt
 420
 cgacaccgtc aacagg
 436

<210> 1870

<211> 123

<212> PRT

<213> Homo sapiens

<400> 1870

Met	Pro	Ser	Thr	Glu	Thr	His	Leu	Trp	Ile	Arg	Glu	Leu	Ser	Arg	Ile
1				5					10					15	
Asp	Arg	Asp	Val	Ser	Thr	Ala	Thr	His	Phe	Arg	Trp	Ser	Asp	Asp	Gly
			20					25					30		
Thr	Val	Leu	Gly	Gln	Thr	Thr	Asp	Asp	Gly	Thr	Glu	Pro	Glu	Val	Val
			35				40					45			
Ala	Leu	Pro	Ala	Val	Tyr	Cys	Arg	Arg	Cys	Gly	Arg	Ser	Gly	Trp	Gly
	50					55					60				
Val	Gln	Leu	Ala	Ser	Thr	Gly	Asn	Asn	Leu	Ser	Glu	Asn	Asn	Asp	Ser
65					70				75					80	
Ile	Arg	Arg	Thr	His	Ala	Ala	His	Asp	Gly	Arg	Phe	Arg	Ala	Leu	Leu
				85				90						95	
Ser	Ala	Pro	Arg	Glu	Gly	Ala	Ser	Ala	Val	Asp	Thr	Gly	Glu	Ala	Thr
			100					105					110		
Leu	Ser	Leu	Arg	Trp	Phe	Asp	Thr	Val	Asn	Arg					
		115					120								

<210> 1871

<211> 474

<212> DNA

<213> Homo sapiens

<400> 1871

nntgcagcgc cccgaggtcg atgtctccaa cgtctttgcc agccttgaca tggctagcga
 60
 gcccgacctc gtccgtaccc tgctgaggca agcccaacaa tgaccgggga acagctcgcg
 120
 cattggatcg aggagtcgac gtcgacgggtg tttttcggcg gcgcgggaat gtccaccgaa
 180
 tcaggtattc cggactttcg ctcggtgggc gggttttaca ccactcagca tgacctgccc
 240
 ttccccgcgg agtacatgct cagtcacagc tgtttggttg agcatccgc ggagttcttc
 300
 gacttctacc gcacctacct catccatcct caggccagge ccaatgctgg tcatcggtcg
 360

ttggttgcct tggagcagggc tggggaactt tcgacgatca ttacccagaa tattgacggc
 420
 ctgcaccaag aagctgggtc tcgtcaggtc attgagttgc atgggtcggt gcac
 474

<210> 1872
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 1872
 Met Thr Gly Glu Gln Leu Ala His Trp Ile Glu Glu Ser Thr Ser Thr
 1 5 10 15
 Val Phe Phe Gly Gly Ala Gly Met Ser Thr Glu Ser Gly Ile Pro Asp
 20 25 30
 Phe Arg Ser Ala Gly Gly Leu Tyr Thr Thr Gln His Asp Leu Pro Phe
 35 40 45
 Pro Ala Glu Tyr Met Leu Ser His Ser Cys Leu Val Glu His Pro Ala
 50 55 60
 Glu Phe Phe Asp Phe Tyr Arg Thr Tyr Leu Ile His Pro Gln Ala Arg
 65 70 75 80
 Pro Asn Ala Gly His Arg Ala Leu Val Ala Leu Glu Gln Ala Gly Glu
 85 90 95
 Leu Ser Thr Ile Ile Thr Gln Asn Ile Asp Gly Leu His Gln Glu Ala
 100 105 110
 Gly Ser Arg Gln Val Ile Glu Leu His Gly Ser Val His
 115 120 125

<210> 1873
 <211> 338
 <212> DNA
 <213> Homo sapiens

<400> 1873
 nacgcgtaga aatgaagccc cagctgggtca gagaccggaa atccggtagt gcacggggacg
 60
 ggttcctcgc gggatctcgc aggggagacc cccacccggg aggactggag gcagcgcctc
 120
 tcccgcctcg gcgcgcgcag cctatttccc tctttccaag gggccaatcc ccaccgcggc
 180
 ccgcaggggg cgcgctcaag gcaagggtccg cggcgagaac ggtgcccagt gggagcgaag
 240
 ggcgaggcca gcccttggtc cttggccggc agttcgggtc ccgcctccaa attttagtat
 300
 gcatatgagt caccaggaaa gttttttgaa acaaattt
 338

<210> 1874
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 1874
 Ser Pro Ser Trp Ser Glu Thr Gly Asn Pro Val Val His Gly Thr Gly


```

      1             5             10             15
Ser Leu Gly Asp Leu Gly Gly Glu Thr Pro Thr Arg Glu Asp Trp Arg
      20             25             30
Gln Arg Leu Ser Arg Pro Gly Ala Arg Ser Leu Phe Pro Ser Phe Gln
      35             40             45
Gly Ala Asn Pro His Arg Gly Pro Gln Gly Ala Arg Ser Arg Gln Gly
      50             55             60
Pro Arg Arg Glu Arg Cys Pro Val Gly Ala Lys Gly Glu Ala Ser Pro
65             70             75             80
Trp Ser Leu Ala Gly Ser Ser Gly Pro Ala Ser Lys Phe
      85             90

```

<210> 1875

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1875

```

aagcttggcg tacaagtggg tcgtcgtttc tcaggtgggtg gagccgtgta tcacgatatg
60
ggcaatatct gttctctgctt cattacagaa gatgatggcg atagcttccg tgattttgga
120
aaattcacag aaccctgat tgaagcactc cataaaatgg gagcaacagg ggcagagtta
180
caaggacgta acgaccttct catcgacgga aagaaattct ctggaaatgc gatgtactca
240
aacaatggcc gtttaacagc gcacggaaca ttaatgttgg atttagatgt gagcattttg
300
ccacaaattt tacgtccaaa acaagagaaa atcgagtcaa aaggaatcaa gtcggttcgt
360
tcacgc
366

```

<210> 1876

<211> 122

<212> PRT

<213> Homo sapiens

<400> 1876

```

Lys Leu Gly Val Gln Val Val Arg Arg Phe Ser Gly Gly Gly Ala Val
      1             5             10             15
Tyr His Asp Met Gly Asn Ile Cys Phe Cys Phe Ile Thr Glu Asp Asp
      20             25             30
Gly Asp Ser Phe Arg Asp Phe Gly Lys Phe Thr Glu Pro Val Ile Glu
      35             40             45
Ala Leu His Lys Met Gly Ala Thr Gly Ala Glu Leu Gln Gly Arg Asn
      50             55             60
Asp Leu Leu Ile Asp Gly Lys Lys Phe Ser Gly Asn Ala Met Tyr Ser
65             70             75             80
Asn Asn Gly Arg Leu Thr Ala His Gly Thr Leu Met Leu Asp Leu Asp
      85             90             95
Val Ser Ile Leu Pro Gln Ile Leu Arg Pro Lys Gln Glu Lys Ile Glu
      100             105             110
Ser Lys Gly Ile Lys Ser Val Arg Ser Arg

```


115

120

<210> 1877

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1877

acgcgtgagt ggtcgcaaat atgacgggca agaaacgctt agaaagaaac taccatttaa
60

cgaggttatg caaattgcag aaatctctct atcggattgt ggctatatta tttcatcttt
120

ccaagctgct ggaccaaggg ctgtagggtt gcaacgacct attatatctg aacatttttt
180

tcaatttgac ccatttgata aacgacattg ggttgtctca catcatttac cacacgctgc
240

gacagctgct ttcacttccg gatttgaaga ttgcgctgga ttagtttcag atactgccgg
300

atcgaacact cttgatggaa aggactatgt tgaaagctgc tgcaatgcta ttccacg
357

<210> 1878

<211> 96

<212> PRT

<213> Homo sapiens

<400> 1878

Met	Gln	Ile	Ala	Glu	Ile	Ser	Leu	Ser	Asp	Cys	Gly	Tyr	Ile	Ile	Ser
1				5					10					15	
Ser	Phe	Gln	Ala	Ala	Gly	Pro	Arg	Ala	Val	Gly	Leu	Gln	Arg	Pro	Ile
		20					25					30			
Ile	Ser	Glu	His	Phe	Phe	Gln	Phe	Asp	Pro	Phe	Asp	Lys	Arg	His	Trp
		35				40					45				
Val	Val	Ser	His	His	Leu	Pro	His	Ala	Ala	Thr	Ala	Ala	Phe	Thr	Ser
		50				55					60				
Gly	Phe	Glu	Asp	Cys	Ala	Gly	Leu	Val	Ser	Asp	Thr	Ala	Gly	Ser	Asn
65					70					75				80	
Thr	Leu	Asp	Gly	Lys	Asp	Tyr	Val	Glu	Ser	Cys	Cys	Asn	Ala	Ile	Pro
			85					90						95	

<210> 1879

<211> 1062

<212> DNA

<213> Homo sapiens

<400> 1879

nacgcgtgga tgctccttgg acggcttttt cgtggtagag ggttcccggg gcgcgccgca
60

tccctgggaa gtagctgaag agaaggcaca ggaagagtcg cctccactga tggctctcct
120

gtccctccca caggctctga cgcccgtctt gcggcttcgg tgtttgaaca ggccacagtc
180

caggagcgt tacattcagg agtccgcgt agcacctgcc caaccaaact cagccctccg
240

ttaagatcct ggttccatgc cgcagtagga cagcaggccc aagtctgcac atcccagtga
 300
 tgcaccatgc caatagtggg taagttgaag gaggccctga aacccggccg caaggactcg
 360
 gctgatgatg gagaactggg gaagcttctt gcctcctctg ccaagaaggt ccttttacag
 420
 aaaatcgagt tcgagccagc cagcaagagc ttctcctacc agctggaggc cttaaagagc
 480
 aaatatgtgt tgctcaaccc caaacacagag ggagctagtc gccacaagag tggagatgac
 540
 ccaccggcca ggagacaggg cagtgaacac acgtatgaga gctgtggtga cggagtccca
 600
 gccccgcaga aagtgccttt cccacaggag cgactgtctc tgaggtggga gcgggtcttc
 660
 cgcgtgggcg caggactcca caacctggc aacacctgct ttctcaatgc caccatccag
 720
 tgcttgacct acacaccacc tctagccaac tacctgctct ccaaggagca tgctcgcagc
 780
 tgccaccagg gaagcttctg catgctgtgt gtcatgcaga accacattgt ccaggccttc
 840
 gccaacagcg gcaacgcat caagcccgtc tccttcatcc gagacctgaa aaagatcgcc
 900
 cgacacttcc gctttgggaa ccaggaggac gcgcatgagt tcctgcggtg caccatcgac
 960
 gccatgcaga aagcctgcct gaatggctgt gccaaagtgg atcgtaaacc gcaggctact
 1020
 accttggctc atcaaatttt tggagggtat ctcagatcac gc
 1062

<210> 1880

<211> 252

<212> PRT

<213> Homo sapiens

<400> 1880

Met	Pro	Ile	Val	Asp	Lys	Leu	Lys	Glu	Ala	Leu	Lys	Pro	Gly	Arg	Lys
1				5					10					15	
Asp	Ser	Ala	Asp	Asp	Gly	Glu	Leu	Gly	Lys	Leu	Leu	Ala	Ser	Ser	Ala
			20					25					30		
Lys	Lys	Val	Leu	Leu	Gln	Lys	Ile	Glu	Phe	Glu	Pro	Ala	Ser	Lys	Ser
		35					40					45			
Phe	Ser	Tyr	Gln	Leu	Glu	Ala	Leu	Lys	Ser	Lys	Tyr	Val	Leu	Leu	Asn
	50					55					60				
Pro	Lys	Thr	Glu	Gly	Ala	Ser	Arg	His	Lys	Ser	Gly	Asp	Asp	Pro	Pro
65					70					75				80	
Ala	Arg	Arg	Gln	Gly	Ser	Glu	His	Thr	Tyr	Glu	Ser	Cys	Gly	Asp	Gly
			85					90						95	
Val	Pro	Ala	Pro	Gln	Lys	Val	Leu	Phe	Pro	Thr	Glu	Arg	Leu	Ser	Leu
		100						105					110		
Arg	Trp	Glu	Arg	Val	Phe	Arg	Val	Gly	Ala	Gly	Leu	His	Asn	Leu	Gly
		115				120					125				
Asn	Thr	Cys	Phe	Leu	Asn	Ala	Thr	Ile	Gln	Cys	Leu	Thr	Tyr	Thr	Pro
	130					135					140				
Pro	Leu	Ala	Asn	Tyr	Leu	Leu	Ser	Lys	Glu	His	Ala	Arg	Ser	Cys	His


```

145          150          155          160
Gln Gly Ser Phe Cys Met Leu Cys Val Met Gln Asn His Ile Val Gln
          165          170          175
Ala Phe Ala Asn Ser Gly Asn Ala Ile Lys Pro Val Ser Phe Ile Arg
          180          185          190
Asp Leu Lys Lys Ile Ala Arg His Phe Arg Phe Gly Asn Gln Glu Asp
          195          200          205
Ala His Glu Phe Leu Arg Tyr Thr Ile Asp Ala Met Gln Lys Ala Cys
          210          215          220
Leu Asn Gly Cys Ala Lys Leu Asp Arg Gln Thr Gln Ala Thr Thr Leu
225          230          235          240
Val His Gln Ile Phe Gly Gly Tyr Leu Arg Ser Arg
          245          250

```

<210> 1881
 <211> 358
 <212> DNA
 <213> Homo sapiens

```

<400> 1881
natcaccatg gatggacgcc ggcaaagcaa catcaatcga tgtcaagcca cagacatctc
60
aaatccctgc agaaccgcaa agtttggcag agaagaagga tgaatgggag atcgcataca
120
tcaacacgaa gattaacgac gtctacaacc ctctcaacaa caatgtggac tggttaagca
180
cgagaattga tctgctacag caagatttgg acaccactcg caagaaggat ctaaaaccag
240
ccacatcgat cgatatctgc accatcacat cgatcgatag caagtctgta gccatggaag
300
ataggttaca atcttataag gatatgcacg accgtttcac ctcacctatc aggcgata
358

```

<210> 1882
 <211> 115
 <212> PRT
 <213> Homo sapiens

```

<400> 1882
Met Asp Ala Gly Lys Ala Thr Ser Ile Asp Val Lys Pro Gln Thr Ser
1      5      10      15
Gln Ile Pro Ala Glu Pro Gln Ser Leu Ala Glu Lys Lys Asp Glu Trp
20     25     30
Glu Ile Ala Tyr Ile Asn Thr Lys Ile Asn Asp Val Tyr Asn Pro Leu
35     40     45
Asn Asn Asn Val Asp Trp Leu Ser Thr Arg Ile Asp Leu Leu Gln Gln
50     55     60
Asp Leu Asp Thr Thr Arg Lys Lys Asp Leu Lys Pro Ala Thr Ser Ile
65     70     75     80
Asp Ile Cys Thr Ile Thr Ser Ile Asp Ser Lys Phe Val Ala Met Glu
85     90     95
Asp Arg Leu Gln Ser Tyr Lys Asp Met His Asp Arg Phe Thr Ser Pro
100    105    110
Ile Arg Arg

```


115

<210> 1883

<211> 367

<212> DNA

<213> Homo sapiens

<400> 1883

ggatcctatc atgaatctgc actctgacca gggaagtaac tcccttggct gctcagactt
 60
 gggctgggag aatgatacta agacaccaga catcacatcc attgctccca tccccactat
 120
 tgctgaaggc gatgagtctg tatttgtcaa ctccaattca aacagctcga tgggtgcctcc
 180
 tgtcctggag aacaatgctg ttgatctcac tgatgggctg acagatttgg aatcctatat
 240
 gaggtttctt atggatggcg gngcaagtga ttcaattgat agccttctga accttgatgg
 300
 atcacaggat cttggttagca atatggacct ctggaccttc gatgacatgc ccatcgctgg
 360
 cgatttn
 367

<210> 1884

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1884

Met	Asn	Leu	His	Ser	Asp	Gln	Gly	Ser	Asn	Ser	Leu	Gly	Cys	Ser	Asp
1			5					10					15		
Leu	Gly	Trp	Glu	Asn	Asp	Thr	Lys	Thr	Pro	Asp	Ile	Thr	Ser	Ile	Ala
		20					25				30				
Pro	Ile	Pro	Thr	Ile	Ala	Glu	Gly	Asp	Glu	Ser	Val	Phe	Val	Asn	Ser
	35					40					45				
Asn	Ser	Asn	Ser	Ser	Met	Val	Pro	Pro	Val	Leu	Glu	Asn	Asn	Ala	Val
	50				55				60						
Asp	Leu	Thr	Asp	Gly	Leu	Thr	Asp	Leu	Glu	Ser	Tyr	Met	Arg	Phe	Leu
65				70				75						80	
Met	Asp	Gly	Gly	Ala	Ser	Asp	Ser	Ile	Asp	Ser	Leu	Leu	Asn	Leu	Asp
		85					90						95		
Gly	Ser	Gln	Asp	Leu	Gly	Ser	Asn	Met	Asp	Leu	Trp	Thr	Phe	Asp	Asp
	100						105						110		
Met	Pro	Ile	Ala	Gly	Asp	Xaa									
						115									

<210> 1885

<211> 392

<212> DNA

<213> Homo sapiens

<400> 1885

nacgcgtatt cgcaaagaat gtctttgcgg cacagagaca gtcgtcgtcc tcgacaccat
 60

gttcgacgat ctccgcatgt tgggaacccg gtgatttctc gcctgcccgc cacctcgtgg
 120
 ctgcgtagta cagctgctgt tgccgccggg gccgcgaccg gtaccgggtt ccaaccactg
 180
 aactgggtgga tctcgtcat tcccgggtctc gctgcgtca tctgctggt gcgcaacgcc
 240
 actgggtcggg ccgcggcagg actgggggtat ctcttcggca tcggtctggt taccaccacc
 300
 atttcctggg taggcgtcat cggcccgcgc gtggcgatac ttctcatcgc tgtcatggcg
 360
 ttgtggtgtc tgctggccgg gtggacgatt cg
 392

<210> 1886

<211> 130

<212> PRT

<213> Homo sapiens

<400> 1886

Xaa	Ala	Tyr	Ser	Gln	Arg	Met	Ser	Leu	Arg	His	Arg	Asp	Ser	Arg	Arg
1				5					10					15	
Pro	Arg	His	His	Val	Arg	Arg	Ser	Arg	His	Val	Gly	Asn	Pro	Val	Ile
			20				25					30			
Ser	Arg	Leu	Arg	Arg	Thr	Ser	Trp	Leu	Arg	Ser	Thr	Ala	Ala	Val	Ala
		35				40					45				
Ala	Gly	Ala	Ala	Thr	Gly	Thr	Gly	Phe	Gln	Pro	Leu	Asn	Trp	Trp	Ile
	50				55					60					
Leu	Val	Ile	Pro	Gly	Leu	Ala	Ala	Leu	Ile	Leu	Leu	Val	Arg	Asn	Ala
65				70					75					80	
Thr	Gly	Arg	Ala	Ala	Gly	Leu	Gly	Tyr	Leu	Phe	Gly	Ile	Gly	Leu	
			85				90					95			
Phe	Thr	Thr	Thr	Ile	Ser	Trp	Val	Gly	Val	Ile	Gly	Pro	Pro	Val	Ala
			100				105					110			
Ile	Leu	Leu	Ile	Ala	Val	Met	Ala	Leu	Trp	Cys	Leu	Leu	Ala	Gly	Trp
		115				120						125			
Thr	Ile														
	130														

<210> 1887

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1887

cgcgagttca ttcggacett tgaggacgtt gccaaagcgtc tcaatgggga ccagccgac
 60
 gacttcttgg tgcagggaaac tttatatccc gatgtcgtcg agtctggtgg cggtaggggc
 120
 gctgccaaata tcaagagtca ccataatgtt ggtgggctcc ctgacgacct ccagttcagt
 180
 ctggttgagc cattgcgcac cctctttaag gacgaggtgc gagccgtcgg actcgaactt
 240
 ggtctgcccc aggacatcgt ctggcgctcag cccttcccgg gcccggggct ggctatccgc
 300

attattggcg aagtcaccgc ggagcgtctg gaggtgctac gcactgccga tgccatcacg
 360
 cgt
 363

<210> 1888
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 1888
 Arg Glu Phe Ile Arg Thr Phe Glu Asp Val Ala Lys Arg Leu Asn Gly
 1 5 10 15
 Asp Gln Pro Ile Asp Phe Leu Val Gln Gly Thr Leu Tyr Pro Asp Val
 20 25 30
 Val Glu Ser Gly Gly Gly Glu Gly Ala Ala Asn Ile Lys Ser His His
 35 40 45
 Asn Val Gly Gly Leu Pro Asp Asp Leu Gln Phe Ser Leu Val Glu Pro
 50 55 60
 Leu Arg Thr Leu Phe Lys Asp Glu Val Arg Ala Val Gly Leu Glu Leu
 65 70 75 80
 Gly Leu Pro Glu Asp Ile Val Trp Arg Gln Pro Phe Pro Gly Pro Gly
 85 90 95
 Leu Ala Ile Arg Ile Ile Gly Glu Val Thr Ala Glu Arg Leu Glu Val
 100 105 110
 Leu Arg Thr Ala Asp Ala Ile Thr Arg
 115 120

<210> 1889
 <211> 530
 <212> DNA
 <213> Homo sapiens

<400> 1889
 gcaccagatc tgctcatggc ggcgattgcg acggcaacgc agtcgatccg gcttgggtct
 60
 ggtgggggtga tggccatgca ctacgggtcg ctgcaaatac cggaacggtt ttcgaccctc
 120
 acagcgtctc tcggtgatcg tatcgacatg gggctgggccc gggctcccgg cggtgacatg
 180
 ctctccgccc atgccctcaa tcaggggcag gtcacccgcc ctgaggccat taattccctc
 240
 atcgccgaaa cggtagggtt cgtgcgcgaa atgctaccgt cgaagcatcc gtacgcaaag
 300
 gtcgtcgtga ccccggcagg tcagatccag ccacagacgt ggctgctggg atcgtcgggc
 360
 cagtcagcag cgtgggctgg tgagcagggt atggactacg cctacgccca gtttttcacc
 420
 gggcgccagg acaccgggat catggatcac taccgcgcgc acctgtccga cggttcccc
 480
 ggcaggaccc tctcagcagt gtgtgtatcg gctgctccga cgcgtccgga
 530

<210> 1890

<211> 176
 <212> PRT
 <213> Homo sapiens

<400> 1890
 Ala Pro Asp Leu Leu Met Ala Arg Ile Ala Thr Ala Thr Gln Ser Ile
 1 5 10 15
 Arg Leu Gly Ser Gly Gly Val Met Ala Met His Tyr Gly Ser Leu Gln
 20 25 30
 Ile Ala Glu Arg Phe Ser Thr Leu Thr Ala Leu Phe Gly Asp Arg Ile
 35 40 45
 Asp Met Gly Leu Gly Arg Ala Pro Gly Gly Asp Met Leu Ser Ala His
 50 55 60
 Ala Leu Asn Gln Gly Gln Val Ile Arg Pro Glu Ala Ile Asn Ser Leu
 65 70 75 80
 Ile Ala Glu Thr Val Gly Phe Val Arg Glu Met Leu Pro Ser Lys His
 85 90 95
 Pro Tyr Ala Lys Val Val Val Thr Pro Ala Gly Gln Ile Gln Pro Gln
 100 105 110
 Thr Trp Leu Leu Gly Ser Ser Gly Gln Ser Ala Ala Trp Ala Gly Glu
 115 120 125
 Gln Gly Met Asp Tyr Ala Tyr Ala Gln Phe Phe Thr Gly Arg Gln Asp
 130 135 140
 Thr Gly Ile Met Asp His Tyr Arg Ala His Leu Ser Asp Gly Phe Pro
 145 150 155 160
 Gly Arg Thr Leu Ser Ala Val Cys Val Ser Ala Ala Pro Thr Arg Pro
 165 170 175

<210> 1891
 <211> 423
 <212> DNA
 <213> Homo sapiens

<400> 1891
 agatctcagg gagacagagg ggcccgggat aggaagaata tgtgggcacc tctccacag
 60
 tcttccatct gcacaaggct acccactctg cagatggccc ctgcttgacag agagatccag
 120
 cgtcaattta cagaggcagc ccagcttctt atcaactttc tggcctggct taacggtgta
 180
 atgggcaggg ggcaaggcct tgaccacact catgtttctc ccccggcctc ctccactctg
 240
 ggattttgta ccggtatggg gaggcactac ggttgacagat ttagcttttc agcgtggata
 300
 caagcaccca agtgtcccag accacagcag aaaccgtgtt gctgccgttt ccaacctgct
 360
 gatttggctt cttgctgccg ttctgaccaa cagaattgct actgactgac aaatcccttg
 420
 tgc
 423

<210> 1892
 <211> 121
 <212> PRT

<213> Homo sapiens

<400> 1892

```

Met Trp Ala Pro Leu Pro Gln Ser Ser Ile Cys Thr Arg Leu Pro Thr
 1           5           10           15
Leu Gln Met Ala Pro Ala Cys Arg Glu Ile Gln Arg Gln Phe Thr Glu
 20           25           30
Ala Ala Gln Leu Pro Ile Asn Phe Leu Ala Trp Leu Asn Gly Val Met
 35           40           45
Gly Arg Gly Gln Gly Leu Asp His Thr His Val Ser Pro Pro Ala Ser
 50           55           60
Ser Thr Leu Gly Phe Cys Thr Gly Met Gly Arg His Tyr Gly Cys Arg
 65           70           75           80
Phe Ser Phe Ser Ala Trp Ile Gln Ala Pro Lys Cys Pro Arg Pro Gln
 85           90           95
Gln Lys Pro Cys Cys Cys Arg Phe Gln Pro Ala Asp Leu Val Ser Cys
 100          105          110
Cys Arg Ser Asp Gln Gln Asn Cys Tyr
 115          120

```

<210> 1893

<211> 886

<212> DNA

<213> Homo sapiens

<400> 1893

```

accggtggtg ctgaaccggc ccgagttgcc cttcctagcc ggatatacgt cgagggacgt
60
catgacgctg aactcgtcga aaagatatgg ggcgacgacc tgcgccacgt cggggtcgtt
120
gtggaataca tgggtggcat ggacgacctc gtcgggatcg tcgccgagtt taagcctggt
180
ccggggcatc gccttggcgt gttggttgac cacctcgttg ccgacaccaa agagtcacgg
240
gtagcggacg aagtacgtcg tgggtgggtat agcgagtatg tcatgattac cggtcatcgc
300
tttattgaca tctggcaggc catcaaacct caacgaattg gccgtcaaga atggcctgag
360
gtcccgatgg acgaagactt caaactcggc accctgaagc gtctgggcct gcctcactcg
420
acccaagctg acgtcggtaa ggcctggcag gccatgctgg cacgagtgcg cgactggcac
480
gatttagacc cccgctttaa cacggagatg gagaaactta tcgatttcgt cacgcgtgac
540
catgtcgacg agctggacaa tggggagatg gcatgagtat tgacgtcgac acggtgtctg
600
acctcatccg ggatgtgagt gccagggtta tcgatccccg gttccggacc ctccacgac
660
atcaaatacca ccagaaaaag cccggggact tcgttactga tgccgatcgt caggccgagt
720
gcgagctggg tgccgctgtg accaagtatg ccggcggtat tgctctgggg gaggaatcag
780
ccttcgccga cccaaccatc cttgatgccg tttccgatgc tgacctggcc tgggtcatcg
840

```


acccattga tggcactaag aacttcgtgc acgggtctgt tgatca
886

<210> 1894

<211> 191

<212> PRT

<213> Homo sapiens

<400> 1894

Thr	Gly	Gly	Ala	Glu	Pro	Ala	Arg	Val	Ala	Leu	Pro	Ser	Arg	Ile	Tyr
1				5					10					15	
Val	Glu	Gly	Arg	His	Asp	Ala	Glu	Leu	Val	Glu	Lys	Ile	Trp	Gly	Asp
			20					25					30		
Asp	Leu	Arg	His	Val	Gly	Val	Val	Val	Glu	Tyr	Met	Gly	Gly	Met	Asp
			35				40					45			
Asp	Leu	Val	Gly	Ile	Val	Ala	Glu	Phe	Lys	Pro	Gly	Pro	Gly	His	Arg
	50					55					60				
Leu	Gly	Val	Leu	Val	Asp	His	Leu	Val	Ala	Asp	Thr	Lys	Glu	Ser	Arg
65					70					75				80	
Val	Ala	Asp	Glu	Val	Arg	Arg	Gly	Gly	Tyr	Ser	Glu	Tyr	Val	Met	Ile
			85					90						95	
Thr	Gly	His	Arg	Phe	Ile	Asp	Ile	Trp	Gln	Ala	Ile	Lys	Pro	Gln	Arg
			100					105						110	
Ile	Gly	Arg	Gln	Glu	Trp	Pro	Glu	Val	Pro	Met	Asp	Glu	Asp	Phe	Lys
			115				120					125			
Leu	Gly	Thr	Leu	Lys	Arg	Leu	Gly	Leu	Pro	His	Ser	Thr	Gln	Ala	Asp
	130					135					140				
Val	Gly	Lys	Ala	Trp	Gln	Ala	Met	Leu	Ala	Arg	Val	Arg	Asp	Trp	His
145					150					155				160	
Asp	Leu	Asp	Pro	Arg	Phe	Asn	Thr	Glu	Met	Glu	Lys	Leu	Ile	Asp	Phe
			165					170						175	
Val	Thr	Arg	Asp	His	Val	Asp	Glu	Leu	Asp	Asn	Gly	Glu	Met	Ala	
			180					185						190	

<210> 1895

<211> 2555

<212> DNA

<213> Homo sapiens

<400> 1895

nntcatgatt tttggagggtg ggttggtacct cctgaacttc tagctttcaa gttgtggctg
60
ttttttgttt ttgtttttgt ttttgttttc tttagaattt ttccctgttt cccaccttct
120
cttccctgt tgccaagggtc taactcactg tagtctggat gtgggtgtat gttcatgtac
180
acaacttttag aaagttgctt gcagaacaaa aaggctacac aaaagcccac tggctctcaa
240
tacctcaag tggatggcag aggcctctgt tgaaagtggg caatttgcaa tctttgcatt
300
aggatttcag atgcatgccca ggtttccact gattgccaga actcgagatc actacacatg
360
gatecccaaa atcaacatgg cagtggcagt tcgttagttg tgatccagca gccttctttg
420

gatagccgtc agagattaga ctatgagaga gagattcagc ctactgctat tttgtcctta
480
gaccagatca aggccataag aggcagcaat gaatacacag aagggccttc ggtgggtgaaa
540
agacctgctc ctcgacagc accaagacaa gaaaagcatg aaaggactca tgaaatcata
600
ccaattaatg tgaataataa ctacgagcac agacacacaa gccacctggg acatgcagta
660
ctcccaagta atgccagggg ccccatTTtg agcagatcaa ccagcactgg aagtgcagcc
720
agctctggga gcaacagcag tgcctcttct gaacagggac tgtaggaag gtcaccacca
780
accagaccag tccctgggtca taggtctgaa agggcaatcc ggaccagcc caagcaactg
840
attgtggatg acttgaaggg ttccttgaaa gaggacctga cacagcacia gttcatttTg
900
gaacagtgtg ggaagtgcaa gtgtggagaa tgcactgctc ccaggacctt accatcctgt
960
ttggcctgta accggcagtg cctttgctct gctgagagca tgggtggaata tggaaacctgc
1020
atgtgcttag tcaagggcat cttctaccac tgctccaatg acgacgaagg ggattcctat
1080
tcagataatc cttgctcctg ttcacaatca cactgctgct ctagatacct gtgtatggga
1140
gccatgtctt tatttttacc ttgcttactc tgttatcctc ctgctaaagg atgcctgaag
1200
ctgtgcagga ggtgttatga ctggatccat cgcccagggt gcagatgtaa gaactccaac
1260
actgtctatt gtaagctgga gagctgcccc tcccggggtc agggtaaacc atcatgattt
1320
ttggagggtg gttgtacctc ctgaacttct agctttcaag ttgtggctgt tttttgtttt
1380
tgTTTTgtt tttgttttct ttagaatttt tccctgttcc ccaccttctc tccccctgtt
1440
gccaaggctt aactcatgga tttttctctt tctcatgga tgatcttcag caagagtgga
1500
ctgggaagct gcacctggct cccactttca acaagagcct ctgccatcca cttgagggtg
1560
ttgagagcca gtgggctttt gtgtagcctt tttgttctgc aagcaacttt cttaaagtgt
1620
gtacatgaac atacaccac atccagacta cagtgattta gagttgtttt gattgggtac
1680
cgtgggagca gggaaattgg ttttttaaaa agcaactgtt taattgctta aataagctat
1740
gtattaaatc tgtctccagt tagggctatc ttcctagcat agggccctta agtagcatgg
1800
gggatattatt ttttgctata acgtaaaaat tttcctttta ccactgccct ctcttttctc
1860
cttcaagggt ctttccccct cagttttgtt gttgtcttac tctggagatg ccaagtgtat
1920
ttttctttc tatgtaattt tagattcgcc ttacaatgta aatcttcaca ttggagataa
1980
tattggttgg accttgccca tcttcactct agccttcgta tttgtgaagg actcagccac
2040

ctctcttctt caccatgc ttctcaccaa atttttgttg tcattgaggg cacttggata
 2100
 actcaagttg atatttatag ctgatcaatc tataatgtgtc acagaactat gctgcctaaa
 2160
 gtgatcttgg ctccttaatg gtccttttgg ccccttggat agttaacagc tgagtaattc
 2220
 taatctcttc tgtgttttcc ttgccttaac cacaaattgt ggtgcttttt gtatatattt
 2280
 tgtataaatc acaaagttga attctgacta tttttaagac aaaagtctgt taaacttttt
 2340
 tattgtaaag aatatttatt atgcgaatct ctattatttt atggtattta ttgcaaaaaga
 2400
 ctggtgaaat gtactcatgt ttgaatataa caaaatatca atacttaacg gaaaataagg
 2460
 tgacacgaag aaagtacata tgttaactat aatgcagaaa atatattaat taatgaaaaa
 2520
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa
 2555

<210> 1896
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 1896
 Cys Glu Gln Cys Gly Lys Cys Lys Cys Gly Glu Cys Thr Ala Pro Arg
 1 5 10 15
 Thr Leu Pro Ser Cys Leu Ala Cys Asn Arg Gln Cys Leu Cys Ser Ala
 20 25 30
 Glu Ser Met Val Glu Tyr Gly Thr Cys Met Cys Leu Val Lys Gly Ile
 35 40 45
 Phe Tyr His Cys Ser Asn Asp Asp Glu Gly Asp Ser Tyr Ser Asp Asn
 50 55 60
 Pro Cys Ser Cys Ser Gln Ser His Cys Cys Ser Arg Tyr Leu Cys Met
 65 70 75 80
 Gly Ala Met Ser Leu Phe Leu Pro Cys Leu Leu Cys Tyr Pro Pro Ala
 85 90 95
 Lys Gly Cys Leu Lys Leu Cys Arg Arg Cys Tyr Asp Trp Ile His Arg
 100 105 110
 Pro Gly Cys Arg Cys Lys Asn Ser Asn Thr Val Tyr Cys Lys Leu Glu
 115 120 125
 Ser Cys Pro Ser Arg Gly Gln Gly Lys Pro Ser
 130 135

<210> 1897
 <211> 938
 <212> DNA
 <213> Homo sapiens

<400> 1897
 cgtcatggct gctacgtgtg cggnaagagc tttgcctggc gctccacact ggtggagcac
 60
 gtctacagtc aactggcga gaagcccttc cactgcactg actgcggcaa gggcttcggc
 120

cacgcttcct ccctgagcaa acaccgggcc atccatcgtg gggagcggcc ccaccgctgt
 180
 ctggagtgtg gccgggcctt cagcgagcgc tcggcgtga cttegcacct gcgcgtccac
 240
 accggcgaga aaccctatgg ctgcgccgac tgtggccgcc gcttcagcca gagctctgcc
 300
 ctctaccagc accggcgcggt gcacagcggc gagacccccct tccccctgcc ggactgtggc
 360
 cgcgccttcg cctacccctc ggacctgcgg cgccacgtgc gcatccacac gggcgagaag
 420
 ccctaccctt gcccagactg tgggcgccgc ttttctctct cctccctgct ggtcagtcac
 480
 cggcgggcac actccggcga gtgccctat gtttgtgacc agtgtggcaa acgtttctcc
 540
 cagcgcaaga acctctccca gcaccaggtc atccatacag gggagaagcc ctatcactgc
 600
 cctgactgtg gtcgctgctt ccggaggagc cggtccttgg ccaatcacccg gaccacacac
 660
 acaggtgaaa aacccccacca gtgccctagc tgtggacgtc gcttcgccta cccctccctg
 720
 ctggccagcc accggcgcggt gcaactcgggc gagcggccct atgcctgcga cctttgctcc
 780
 aagcgttttg ctcaagtggag ccacctggcc cagcaccagc tgctgcacac gggggagaag
 840
 cctttccctt gcctcgagtg tggccgggct tccgccagag gtggtctctg gctgtccaca
 900
 agtgtagccc caaggcccca aactgtagcc ctagatct
 938

<210> 1898

<211> 312

<212> PRT

<213> Homo sapiens

<400> 1898

Arg	His	Gly	Cys	Tyr	Val	Cys	Gly	Lys	Ser	Phe	Ala	Trp	Arg	Ser	Thr
1			5					10						15	
Leu	Val	Glu	His	Val	Tyr	Ser	His	Thr	Gly	Glu	Lys	Pro	Phe	His	Cys
			20					25					30		
Thr	Asp	Cys	Gly	Lys	Gly	Phe	Gly	His	Ala	Ser	Ser	Leu	Ser	Lys	His
		35					40					45			
Arg	Ala	Ile	His	Arg	Gly	Glu	Arg	Pro	His	Arg	Cys	Leu	Glu	Cys	Gly
	50				55					60					
Arg	Ala	Phe	Thr	Gln	Arg	Ser	Ala	Leu	Thr	Ser	His	Leu	Arg	Val	His
65				70				75				80			
Thr	Gly	Glu	Lys	Pro	Tyr	Gly	Cys	Ala	Asp	Cys	Gly	Arg	Arg	Phe	Ser
			85					90				95			
Gln	Ser	Ser	Ala	Leu	Tyr	Gln	His	Arg	Arg	Val	His	Ser	Gly	Glu	Thr
		100					105					110			
Pro	Phe	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Ala	Phe	Ala	Tyr	Pro	Ser	Asp
	115					120					125				
Leu	Arg	Arg	His	Val	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro	Cys
	130				135					140					
Pro	Asp	Cys	Gly	Arg	Arg	Phe	Ser	Ser	Ser	Ser	Leu	Leu	Val	Ser	His


```

145          150          155          160
Arg Arg Ala His Ser Gly Glu Cys Pro Tyr Val Cys Asp Gln Cys Gly
          165          170          175
Lys Arg Phe Ser Gln Arg Lys Asn Leu Ser Gln His Gln Val Ile His
          180          185          190
Thr Gly Glu Lys Pro Tyr His Cys Pro Asp Cys Gly Arg Cys Phe Arg
          195          200          205
Arg Ser Arg Ser Leu Ala Asn His Arg Thr Thr His Thr Gly Glu Lys
          210          215          220
Pro His Gln Cys Pro Ser Cys Gly Arg Arg Phe Ala Tyr Pro Ser Leu
225          230          235          240
Leu Ala Ser His Arg Arg Val His Ser Gly Glu Arg Pro Tyr Ala Cys
          245          250          255
Asp Leu Cys Ser Lys Arg Phe Ala Gln Trp Ser His Leu Ala Gln His
          260          265          270
Gln Leu Leu His Thr Gly Glu Lys Pro Phe Pro Cys Leu Glu Cys Gly
          275          280          285
Arg Ala Ser Ala Arg Gly Gly Leu Trp Leu Ser Thr Ser Val Ala Pro
          290          295          300
Arg Pro Gln Thr Val Ala Leu Asp
305          310

```

<210> 1899

<211> 508

<212> DNA

<213> Homo sapiens

<400> 1899

```

aaatttgcct ccctaattgg caaggtgcaa gccctggaac agcgcgacca gctgctggag
60
acacgctgga gcttcctgca gggccaggac tcagccatct tcgacctcgg gcatctctat
120
gaggaaatat caggccggct gcggagggaa ctgggccaac gggacaggaa ccgggggagcag
180
ctggaggcca ccctgctgca ggtgttgaaa aaggtggagg agtttcgaat caggtattga
240
gatgagatct ccaagcgcac agacatggag ttcacctttg ttcagctgaa gaaggacctg
300
gatgcagagt gtcttcatcg gactgaactg gaaaccaagt taaaaagcct ggagagcttc
360
gtggagttga tgaaaaccat ctatgagcag gagctgaagg acctggcagc acaggtgaag
420
gatgtgtcgg tgaccgtcgg catggacagc cgctgccaca tcgacctgag cggcatcgtg
480
gaggaggtga aggcccagta tgacgccg
508

```

<210> 1900

<211> 79

<212> PRT

<213> Homo sapiens

<400> 1900

```

Lys Phe Ala Ser Leu Ile Gly Lys Val Gln Ala Leu Glu Gln Arg Asp

```


1 5 10 15
 Gln Leu Leu Glu Thr Arg Trp Ser Phe Leu Gln Gly Gln Asp Ser Ala
 20 25 30
 Ile Phe Asp Leu Gly His Leu Tyr Glu Glu Ile Ser Gly Arg Leu Arg
 35 40 45
 Arg Glu Leu Gly Gln Arg Asp Arg Asn Arg Gly Gln Leu Glu Ala Thr
 50 55 60
 Leu Leu Gln Val Leu Lys Lys Val Glu Glu Phe Arg Ile Arg Tyr
 65 70 75

<210> 1901

<211> 453

<212> DNA

<213> Homo sapiens

<400> 1901

acgcggtggac cagcatgcgc cggatcgggc tcggcgccat gcacacctcg gacctggcgg
 60
 cgggtgttcgg cgatgcgaag gcaacccgcg cttccaagtt cgaccggttc cagccgcgcg
 120
 aggaattcga cgaggtcagc gccgccatgc agttccactg gggctccttc ttccacaacg
 180
 cgcatccggg cgagaagtgg ccggtctacg gtttccgcag cgacacggag cccggccgcg
 240
 cgaccgcgat cttecgggcg aagtcctccg tggagtacga cccaaggcg gcgcagcgcc
 300
 gcgcgtggga gggctttgac atgcgcgaat ggggcatgca caggcaggac ctggtggaaa
 360
 cgctcaccga ttccatcgcc gacgagggca acgcttagcg acgccagcgc caccgagttt
 420
 agagaaatga aagaaatttt aatagagggt gga
 453

<210> 1902

<211> 151

<212> PRT

<213> Homo sapiens

<400> 1902

Thr Arg Gly Pro Arg Cys Ala Gly Ser Gly Ser Ala Pro Cys Thr Pro
 1 5 10 15
 Arg Thr Trp Arg Arg Cys Ser Ala Met Arg Arg Gln Pro Ala Leu Pro
 20 25 30
 Ser Ser Thr Arg Ser Ser Arg Ala Arg Asn Ser Thr Arg Ser Ala Pro
 35 40 45
 Pro Cys Ser Ser Thr Gly Ala Pro Ser Ser Thr Thr Arg Ile Arg Ala
 50 55 60
 Arg Ser Gly Arg Ser Thr Val Ser Ala Ala Thr Arg Ser Pro Ala Ala
 65 70 75 80
 Arg Pro Arg Ser Ser Arg Arg Ser Pro Pro Trp Ser Thr Thr Pro Arg
 85 90 95
 Arg Arg Ser Ala Ala Arg Gly Arg Ala Leu Thr Cys Ala Asn Gly Ala
 100 105 110
 Cys Thr Gly Arg Thr Trp Trp Lys Arg Ser Pro Ile Pro Ser Pro Thr

115 120 125
 Arg Ala Thr Leu Ser Asp Ala Ser Ala Thr Glu Phe Arg Glu Met Lys
 130 135 140
 Glu Ile Leu Ile Glu Gly Gly
 145 150

<210> 1903
 <211> 531
 <212> DNA
 <213> Homo sapiens

<400> 1903
 ccggcgaggg agctgttccg ggacgccgcc ttccccgccg cggactcctc gctcttctgc
 60
 gacttgtcta cgccgctggc ccagttccgc gaggacatca cgtggaggcg gccccagaga
 120
 atttgtgcca acccccgtt gtttccaaat gaccaacggg aagggcaggt gaagcagggg
 180
 ctgctggggg attgctggtt cctgtgtgcc tgcgccgcgc tgcagaagag caggcacctc
 240
 ctggaccagg tcattcctgc gggacagccg agctggggccg accaggagta ccggggctcc
 300
 ttcacctgtc gcttttggca gtttggacgg tgggtggagg gtccatgggt cccttcgagc
 360
 ccctgtgggc ggggcaggtg gcggatgccc tggtggacct gaccggcggc ctggcagaaa
 420
 gatggaacct gaagggcgta gcaggaagcg gaggccagca ggacaggcca ggccgctggg
 480
 agcacaggac ttgtcggcag ctgctccacc tgaaggacca gtgtctgac a
 531

<210> 1904
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 1904
 Pro Ala Arg Glu Leu Phe Arg Asp Ala Ala Phe Pro Ala Ala Asp Ser
 1 5 10 15
 Ser Leu Phe Cys Asp Leu Ser Thr Pro Leu Ala Gln Phe Arg Glu Asp
 20 25 30
 Ile Thr Trp Arg Arg Pro Gln Arg Ile Cys Ala Asn Pro Arg Leu Phe
 35 40 45
 Pro Asn Asp Gln Arg Glu Gly Gln Val Lys Gln Gly Leu Leu Gly Asp
 50 55 60
 Cys Trp Phe Leu Cys Ala Cys Ala Ala Leu Gln Lys Ser Arg His Leu
 65 70 75 80
 Leu Asp Gln Val Ile Pro Ala Gly Gln Pro Ser Trp Ala Asp Gln Glu
 85 90 95
 Tyr Arg Gly Ser Phe Thr Cys Arg Phe Trp Gln Phe Gly Arg Trp Val
 100 105 110
 Glu Gly Pro Trp Val Pro Ser Ser Pro Cys Gly Arg Gly Arg Trp Arg
 115 120 125
 Met Pro Trp Trp Thr

130

<210> 1905
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 1905
 acgcgtgggc tgatcggcat gctctgggca ctgggggtgg tggcggaagt gctgatgttc
 60
 ctggccatga gccggatcct cgcgcgcttt tcgggtccgtc ggggtgctgct ggccagtttc
 120
 ctcttgggccg ccgtgcgctg gttgctgctg ggcgcgttgg ccgatcacct ggcgggtgctg
 180
 ttgttcgccc aggtgctgca cgcggcgacc tttgccagct ttcacgcctc tgccattcat
 240
 ttcgtgcaac gtagcttcgg cgcgcgcnc a gcaaggccag ggcaggcggt atacgtgca
 300
 ctggccggta cgggcggggc tttgggcgcg ttgtacgccg gttatagctg gaacagcctg
 360
 gggccgacct ggactttcag catcggtt
 387

<210> 1906
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 1906
 Thr Arg Gly Leu Ile Gly Met Leu Trp Ala Leu Gly Val Val Ala Glu
 1 5 10 15
 Val Leu Met Phe Leu Ala Met Ser Arg Ile Leu Ala Arg Phe Ser Val
 20 25 30
 Arg Arg Val Leu Leu Ala Ser Phe Leu Leu Ala Ala Val Arg Trp Leu
 35 40 45
 Leu Leu Gly Ala Leu Ala Asp His Leu Ala Val Leu Leu Phe Ala Gln
 50 55 60
 Val Leu His Ala Ala Thr Phe Ala Ser Phe His Ala Ser Ala Ile His
 65 70 75 80
 Phe Val Gln Arg Ser Phe Gly Ala Arg Xaa Ala Arg Pro Gly Gln Ala
 85 90 95
 Leu Tyr Ala Ala Leu Ala Gly Thr Gly Gly Ala Leu Gly Ala Leu Tyr
 100 105 110
 Ala Gly Tyr Ser Trp Asn Ser Leu Gly Pro Thr Trp Thr Phe Ser Ile
 115 120 125
 Val

<210> 1907
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 1907

acgcggtttcg accagcgcat ccgtgtcggc ggcattggcg aaatcgtcgg cttcgacaag
 60
 aagctgcgcg ccgcgcgccg cgaaacgctc gagatgtgcg tcaacgacct gttccccggc
 120
 ggccggcgaca cgtcgaaggc cagtttctgg acgggctgc gcccgatgac gccggacggc
 180
 acgcgatcg tcggccgcac gccggtgtcg aacctgttcc tgaacaccgg ccacggcacg
 240
 ctccgctgga caatggtgtg cggctcgggc caactgctcg ccgacctgat ctccgggcaag
 300
 atgcccgcga tccaggccga cgacctgtct nnc
 333

<210> 1908

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1908

Thr	Arg	Phe	Asp	Gln	Arg	Ile	Arg	Val	Gly	Gly	Met	Ala	Glu	Ile	Val
1				5					10					15	
Gly	Phe	Asp	Lys	Lys	Leu	Arg	Ala	Ala	Arg	Arg	Glu	Thr	Leu	Glu	Met
			20					25					30		
Cys	Val	Asn	Asp	Leu	Phe	Pro	Gly	Gly	Gly	Asp	Thr	Ser	Lys	Ala	Thr
		35					40				45				
Phe	Trp	Thr	Gly	Leu	Arg	Pro	Met	Thr	Pro	Asp	Gly	Thr	Pro	Ile	Val
	50					55				60					
Gly	Arg	Thr	Pro	Val	Ser	Asn	Leu	Phe	Leu	Asn	Thr	Gly	His	Gly	Thr
65				70					75					80	
Leu	Gly	Trp	Thr	Met	Val	Cys	Gly	Ser	Gly	Gln	Leu	Leu	Ala	Asp	Leu
			85					90					95		
Ile	Ser	Gly	Lys	Met	Pro	Ala	Ile	Gln	Ala	Asp	Asp	Leu	Ser	Xaa	
			100				105						110		

<210> 1909

<211> 2767

<212> DNA

<213> Homo sapiens

<400> 1909

ngactgccgg tcgttcggac gtcttgcttg tcgcgtggag gagagggtccg ggctctccag
 60
 gaaggtggct gcggcgacaa aatgaagata ttcgtgggca acgtcgacgg gccggatacg
 120
 actccggagg agctggcagc cctctttgct ccctacggca cggcatgag ctgcgccgtc
 180
 atgaaacagt tcgccttcgt gcacatgcgc gagaacgcgg gcgcgctgcg cgccatcgaa
 240
 gccctgcacg gccacgagct gcggccgggg cgcgcgctcg tgggtggaaat gtcgcgccca
 300
 aggcctctta atacttgga gattttcgtg ggcaatgtgt cggctgcatg cagagccag
 360
 gaactgcgca gcctcttcga gcgccgcgga cgcgcatcg agtgtgacgt ggtgaaagac
 420

tacgcgtttg ttcacatgga gaaggaagca gatgccaaag ccgcaatcgc gcagctcaac
480
ggcaaagaag tgaagggcaa gcgcatcaac gtggaactct ccaccaaggg tcagaagaag
540
gggcctggcc tggctgtcca gtctggggac aagaccaaga aaccaggggc tggggatacg
600
gccttccctg gaactggtgg cttctctgcc accttcgact accagcaggc ttttggcaac
660
agcactggtg gctttgatgg gcaagcccg t cagcccacac cacccttctt tggtcgcgac
720
cgcagccctc tgcgccgttc acctccccga gcctcttatg tggtctctct gacggcccag
780
ccagctacct accgggcccc gccgtccgtg t cactgggag ctgcctacag ggcccagcct
840
tctgcctctt tgggtgttgg ctatcggact cagcccatga cagcccaggc agcctcttac
900
cgcgtcagc cctctgtctc ccttggggca ccatacaggg gccagctggc tagtcttagc
960
tcccagtctg ctgcagcttc ttactcggc ccatacgggtg gagcccagcc ctgcagctcg
1020
gccctttcct cctatggggg tcaggcagct gcagcttctt cgctcaactc ctatggggct
1080
cagggttctt ccttgcctc ctatggtaac cagccatcct cttacggcgc ccagggtgcc
1140
tcttctatg ggggttcgtg agctgcttct tctacaaca cccagggagc agcttctctc
1200
ttaggtcctt acggggctca ggcagcctcc tatggggccc agtctgcagc ctctcacta
1260
gcttatggag cccaggcagc ttcatataat gccagccct cggcctctta caatgccag
1320
tctgccccat atgtgcaca gcaggctgt tctactctt cccaacctgc tgcctatgtg
1380
gcacagccag ccacagctgc tgcctatgcc agccagccag cagcctacgc cgcacaagcc
1440
actaccccaa tggctggctc ctatggggcc cagccgggtg tgcagacca gctgaatagt
1500
tacggggccc aagcatcaat gggcctttca ggctcctatg gggctcagtc ggctgctgag
1560
gccactggct cctatggtgc cgcagcagcc tacggggccc aaccttctgc cactctggca
1620
gtccttacc gactcagtc atcagcctca ttggctgctt cctatgctgc ccagcagcat
1680
ccccaggctg ctgcctcta ccgcgccag ccaggcaatg cctacgatgg ggcaggtcag
1740
ccgtctgag cctacctgtc catgtcccag ggggccgttg ccaacgcaa cagcaccgcc
1800
ccgccctatg agcgtaccgc cctctccca ccccgggcca gctacgacga tccctacaaa
1860
aaggctgtgc ccatgtcgaa aaggatggt tccgaccggc gtttagccga gctctctgat
1920
taccgccgtt tatcagagtc gcagctttcg ttccgcccgt cgcgcacaaa gtctctgctg
1980
gattaccgtc gcctgcccga tgccattcc gattacgcac gctattcggg ctctataat
2040

gattacctgc gggcggtca gatgcactct ggctaccagc gccgcatgta gggccatcct
 2100
 gggatggggc accacagga gggagggaga aaagaggtgg gtaggggtac agatccaggt
 2160
 tataactact ctggcccata cctttcctgg ttgtggtttt tcatgccctc taccatgtgg
 2220
 gccttcccca ggagatgatc ctgttaagtg ttcggcagta acctactttg ttccttcgcc
 2280
 tcagcagcaa atcttgctac tggctctaga tctgcggttt cccctctacc ctgcctcctg
 2340
 tctccccaga atgggaattt cttttatgtt tttatttttt tcttggtccc cttttatttt
 2400
 tgtgcgcgat atttaaggtc gtctggatgg ggaagcaacc tgcagctgag gtcgccggcg
 2460
 cctttttctt ttagatggg aaggaggcca ggaaagggtc agcttaacca tttcctatgt
 2520
 gccaaagtgt gccagcagtc cagggtaccc tgactgtccc tctgtagact gttgagactg
 2580
 agttcctgtt gggacagtca gttggtatgt atccaagtcc ctgctgacca ctaatgttct
 2640
 agctgatggt gageggcaca gtcccacttc cccatctccc caagtaggtg gtgttagaaa
 2700
 accttaattt tttttccctt ttgtatggac tacaaataaa acttggggca atttgcagtt
 2760
 tggaaaa
 2767

<210> 1910

<211> 669

<212> PRT

<213> Homo sapiens

<400> 1910

Met	Lys	Ile	Phe	Val	Gly	Asn	Val	Asp	Gly	Ala	Asp	Thr	Thr	Pro	Glu
1				5					10					15	
Glu	Leu	Ala	Ala	Leu	Phe	Ala	Pro	Tyr	Gly	Thr	Val	Met	Ser	Cys	Ala
			20					25					30		
Val	Met	Lys	Gln	Phe	Ala	Phe	Val	His	Met	Arg	Glu	Asn	Ala	Gly	Ala
		35					40					45			
Leu	Arg	Ala	Ile	Glu	Ala	Leu	His	Gly	His	Glu	Leu	Arg	Pro	Gly	Arg
	50					55					60				
Ala	Leu	Val	Val	Glu	Met	Ser	Arg	Pro	Arg	Pro	Leu	Asn	Thr	Trp	Lys
65					70					75				80	
Ile	Phe	Val	Gly	Asn	Val	Ser	Ala	Ala	Cys	Thr	Ser	Gln	Glu	Leu	Arg
			85					90					95		
Ser	Leu	Phe	Glu	Arg	Arg	Gly	Arg	Val	Ile	Glu	Cys	Asp	Val	Val	Lys
		100					105						110		
Asp	Tyr	Ala	Phe	Val	His	Met	Glu	Lys	Glu	Ala	Asp	Ala	Lys	Ala	Ala
		115					120					125			
Ile	Ala	Gln	Leu	Asn	Gly	Lys	Glu	Val	Lys	Gly	Lys	Arg	Ile	Asn	Val
	130					135					140				
Glu	Leu	Ser	Thr	Lys	Gly	Gln	Lys	Lys	Gly	Pro	Gly	Leu	Ala	Val	Gln
145					150					155				160	
Ser	Gly	Asp	Lys	Thr	Lys	Lys	Pro	Gly	Ala	Gly	Asp	Thr	Ala	Phe	Pro

165 170 175
 Gly Thr Gly Gly Phe Ser Ala Thr Phe Asp Tyr Gln Gln Ala Phe Gly
 180 185 190
 Asn Ser Thr Gly Gly Phe Asp Gly Gln Ala Arg Gln Pro Thr Pro Pro
 195 200 205
 Phe Phe Gly Arg Asp Arg Ser Pro Leu Arg Arg Ser Pro Pro Arg Ala
 210 215 220
 Ser Tyr Val Ala Pro Leu Thr Ala Gln Pro Ala Thr Tyr Arg Ala Gln
 225 230 235 240
 Pro Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser
 245 250 255
 Leu Gly Val Gly Tyr Arg Thr Gln Pro Met Thr Ala Gln Ala Ala Ser
 260 265 270
 Tyr Arg Ala Gln Pro Ser Val Ser Leu Gly Ala Pro Tyr Arg Gly Gln
 275 280 285
 Leu Ala Ser Pro Ser Ser Gln Ser Ala Ala Ala Ser Ser Leu Gly Pro
 290 295 300
 Tyr Gly Gly Ala Gln Pro Ser Ala Ser Ala Leu Ser Ser Tyr Gly Gly
 305 310 315 320
 Gln Ala Ala Ala Ala Ser Ser Leu Asn Ser Tyr Gly Ala Gln Gly Ser
 325 330 335
 Ser Leu Ala Ser Tyr Gly Asn Gln Pro Ser Ser Tyr Gly Ala Gln Ala
 340 345 350
 Ala Ser Ser Tyr Gly Val Arg Ala Ala Ala Ser Ser Tyr Asn Thr Gln
 355 360 365
 Gly Ala Ala Ser Ser Leu Gly Ser Tyr Gly Ala Gln Ala Ala Ser Tyr
 370 375 380
 Gly Ala Gln Ser Ala Ala Ser Ser Leu Ala Tyr Gly Ala Gln Ala Ala
 385 390 395 400
 Ser Tyr Asn Ala Gln Pro Ser Ala Ser Tyr Asn Ala Gln Ser Ala Pro
 405 410 415
 Tyr Ala Ala Gln Gln Ala Ala Ser Tyr Ser Ser Gln Pro Ala Ala Tyr
 420 425 430
 Val Ala Gln Pro Ala Thr Ala Ala Ala Tyr Ala Ser Gln Pro Ala Ala
 435 440 445
 Tyr Ala Ala Gln Ala Thr Thr Pro Met Ala Gly Ser Tyr Gly Ala Gln
 450 455 460
 Pro Val Val Gln Thr Gln Leu Asn Ser Tyr Gly Ala Gln Ala Ser Met
 465 470 475 480
 Gly Leu Ser Gly Ser Tyr Gly Ala Gln Ser Ala Ala Ala Ala Thr Gly
 485 490 495
 Ser Tyr Gly Ala Ala Ala Tyr Gly Ala Gln Pro Ser Ala Thr Leu
 500 505 510
 Ala Ala Pro Tyr Arg Thr Gln Ser Ser Ala Ser Leu Ala Ala Ser Tyr
 515 520 525
 Ala Ala Gln Gln His Pro Gln Ala Ala Ala Ser Tyr Arg Gly Gln Pro
 530 535 540
 Gly Asn Ala Tyr Asp Gly Ala Gly Gln Pro Ser Ala Ala Tyr Leu Ser
 545 550 555 560
 Met Ser Gln Gly Ala Val Ala Asn Ala Asn Ser Thr Pro Pro Pro Tyr
 565 570 575
 Glu Arg Thr Arg Leu Ser Pro Pro Arg Ala Ser Tyr Asp Asp Pro Tyr
 580 585 590
 Lys Lys Ala Val Ala Met Ser Lys Arg Tyr Gly Ser Asp Arg Arg Leu


```

      595              600              605
Ala Glu Leu Ser Asp Tyr Arg Arg Leu Ser Glu Ser Gln Leu Ser Phe
  610              615              620
Arg Arg Ser Pro Thr Lys Ser Ser Leu Asp Tyr Arg Arg Leu Pro Asp
  625              630              635              640
Ala His Ser Asp Tyr Ala Arg Tyr Ser Gly Ser Tyr Asn Asp Tyr Leu
      645              650              655
Arg Ala Ala Gln Met His Ser Gly Tyr Gln Arg Arg Met
      660              665

```

<210> 1911
 <211> 339
 <212> DNA
 <213> Homo sapiens

```

<400> 1911
ncggggtggc cggaatctac tcctagtgtc cagcttccct cctcttctgt cttccctcg
60
ggtgcgcgga tgcgtttgctg cccctgctg cgttccgacg gtcattgagt ggcgcgtcag
120
cgcatcgacg atgaaagctt cctccgccca gttgagccga cccaagccgc accgtgggctg
180
gcagcgcata gccagcaggc gtggtggaat cacctgaagt acctgcgcac cgccgcgcgt
240
gaagcactgg tgggtccgct cgtcattgag gtggagggga aattcgagg gcaggttaacc
300
ctgggaaaca ttcagcatgg cagcattcgc gattgctgg
339

```

<210> 1912
 <211> 113
 <212> PRT
 <213> Homo sapiens

```

<400> 1912
Xaa Gly Trp Pro Glu Ser Thr Pro Ser Val Gln Leu Pro Ser Ser Ser
 1              5              10              15
Val Phe Pro Ser Gly Ala Arg Met Arg Leu Arg Pro Leu Leu Arg Ser
      20              25              30
Asp Gly His Glu Trp Arg Arg Gln Arg Ile Asp Asp Glu Ser Phe Leu
      35              40              45
Arg Pro Val Glu Pro Thr Gln Ala Ala Pro Trp Ala Ala Ala His Ser
      50              55              60
Gln Gln Ala Trp Trp Asn His Leu Lys Tyr Leu Arg Thr Ala Ala Arg
 65              70              75              80
Glu Ala Leu Val Val Pro Leu Val Ile Glu Val Glu Gly Lys Phe Ala
      85              90              95
Gly Gln Val Thr Leu Gly Asn Ile Gln His Gly Ser Ile Arg Asp Cys
      100              105              110
Trp

```

<210> 1913
 <211> 767

<212> DNA

<213> Homo sapiens

<400> 1913

gtgcacaccg gttcacagcg atatttcagg caaattgaaa gcgtcagttc gataggctga
60
atgcgaaatg ggggatttgt caccctcagg gaccggaagg aaggagcag tccgatggca
120
gcgccagtac tcgatctcgt cctcccagcc ttgtccgaaa cctccgccaa tctcatcggc
180
cagaggttgc gccagggatg tcacacctcc atccccacat cgaatctacg gtgagcttcg
240
tcccagctgt cgggcagtac aaggcacctc ggatcaagct ttcctggcgt gaactggctc
300
tggtacctat caatgccacc cacctgcact ccaatcccc acaagttgtc caacacgccg
360
cagaattgcg tcgcagccac ccggaccttg ccatcaaggt ggcccccccc accggaccag
420
caccggctct cctcaacctc gtcgatacgc gattgcgtct ggcagctcat cgcgtccatg
480
cccaggagct ggactcactc gtattgtctt cccctgatgg cggcgattta cgtggctcgg
540
caatgctgtc caggctgacc cggctgtggt cccagcacca ccaccttcg gtccgcatcg
600
ccaccaatcg tgggtgggct actgcggtcg aggaggtcgt cgccccctg cgacaggagg
660
ggcgccgtca tatcgcagtg ggaagcctgt ggatttgca cgacgagaat ttccgcattc
720
atactcgcca ggctttgcat gccggtgccg aggttgctgc cgcaccg
767

<210> 1914

<211> 190

<212> PRT

<213> Homo sapiens

<400> 1914

Met	Ser	His	Leu	His	Pro	His	Ile	Glu	Ser	Thr	Val	Ser	Phe	Val	Pro
1				5				10						15	
Ala	Val	Gly	Gln	Tyr	Lys	Ala	Pro	Arg	Ile	Lys	Leu	Ser	Trp	Arg	Glu
		20						25					30		
Leu	Val	Leu	Val	Pro	Ile	Asn	Ala	Thr	His	Leu	His	Ser	Asn	Pro	Pro
		35					40					45			
Gln	Val	Val	Gln	His	Ala	Ala	Glu	Leu	Arg	Arg	Ser	His	Pro	Asp	Leu
	50				55						60				
Ala	Ile	Lys	Val	Ala	Arg	Pro	Thr	Gly	Pro	Ala	Pro	Val	Leu	Leu	Asn
65					70				75						80
Leu	Val	Asp	Thr	Arg	Leu	Arg	Leu	Ala	Ala	His	Arg	Val	His	Ala	Gln
				85				90					95		
Glu	Leu	Asp	Ser	Leu	Val	Leu	Ser	Ser	Pro	Asp	Gly	Gly	Asp	Leu	Arg
		100					105					110			
Gly	Ser	Ala	Met	Leu	Ser	Arg	Leu	Thr	Arg	Leu	Trp	Ser	Gln	His	His
	115						120				125				
His	Leu	Pro	Val	Arg	Ile	Ala	Thr	Asn	Arg	Gly	Gly	Ala	Thr	Ala	Val

130		135		140
Glu Glu Val Val Ala Arg Leu Arg Gln Glu Gly Arg Arg His Ile Ala				
145		150		155
Val Gly Ser Leu Trp Ile Cys Asp Asp Glu Asn Phe Arg Ile His Thr				160
	165		170	175
Arg Gln Ala Leu His Ala Gly Ala Glu Val Val Ala Ala Pro				
180		185		190

<210> 1915
 <211> 571
 <212> DNA
 <213> Homo sapiens

<400> 1915
 acgcgtccca ggccccacag gcccctctg gctctcaggc cccccgcca gtggccagga
 60
 aggtgtgagc gcacgatggg cagtcacgcc gcacacacgc tctgctcatg tccctcccca
 120
 ggaccctctg accgggcaca agggcagctg tgaggacaag gccacagcca caaaccaacc
 180
 tggcacacac ggctcagggc gaggcactgc cccatggggc tgcattgatcc acgctcacag
 240
 gtgtcattgt ctatgctcag gggggcttgg caccatggga aaccacacca gaacacatgg
 300
 agaagccaca gcacaacctc agcgcccgcc atgcaggacc ctgggtctca cccattgcac
 360
 ccaccgtgcg ggacccctgc gcctcaccgc gaacatccac agtgtgggac tgctgcgtct
 420
 caccactgc acctgccgtg caggatccct gagtctcacc cgccgcaccc gccgtgcggg
 480
 atccctgagt ctaccccgcc gcaccgcgcg tacctgccgc atccgccatg cgggaccct
 540
 gcgtctcacc caccgcaccc gccgtgcggg a
 571

<210> 1916
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 1916
 Met Gly Leu His Asp Pro Arg Ser Gln Val Ser Leu Ser Met Leu Arg
 1 5 10 15
 Gly Ala Trp His His Gly Lys Pro Thr Gln Asn Thr Trp Arg Ser His
 20 25 30
 Ser Thr Thr Ser Ala Pro Ala Met Gln Asp Pro Gly Ser His Pro Leu
 35 40 45
 His Pro Pro Cys Gly Thr Pro Ala Pro His Pro Glu His Pro Gln Cys
 50 55 60
 Gly Thr Ala Ala Ser His Pro Leu His Leu Pro Cys Arg Ile Pro Glu
 65 70 75 80
 Ser His Pro Pro His Pro Pro Cys Gly Ile Pro Glu Ser His Pro Pro
 85 90 95
 His Pro Pro Tyr Leu Pro His Pro Pro Cys Gly Thr Pro Ala Ser His

Pro Pro His 100 Pro Pro Cys Gly
115

105

110

<210> 1917
<211> 360
<212> DNA
<213> Homo sapiens

<400> 1917
nnacgcgtga cggcggaaga tctccgcacc ctatctgccg ggtacacgcc ggggtgattcc
60
gatatgtctt gggctgccat caccttgtgg cgcgggtgctg ttgcctccgc cttggaccgt
120
catccctatg gcccggtgaa gtcggtaaag gtagcaggtc cggccggcca cccagccccg
180
gatttcgccg ccggatgggt gtcgaccgc ttggcagttc ccgtacatcg cacagtggcc
240
gactcccaaa ggagacactt cccggtgact catttgagc tcaatcggga gacaaccac
300
gtagacgtcg atgtcattga cgagcgacg gttcgtgtat gtgttcggg ttcgccggaa
360

<210> 1918
<211> 120
<212> PRT
<213> Homo sapiens

<400> 1918
Xaa Arg Val Thr Gly Glu Asp Leu Arg Thr Leu Ser Ala Gly Tyr Thr
1 5 10 15
Pro Gly Asp Ser Asp Met Ser Trp Ala Ala Ile Thr Leu Trp Arg Gly
20 25 30
Val Val Ala Ser Ala Leu Asp Arg His Pro Tyr Gly Pro Val Lys Ser
35 40 45
Val Lys Val Ala Gly Pro Ala Gly His Pro Ala Pro Asp Phe Ala Ala
50 55 60
Gly Trp Leu Leu Asp Arg Leu Ala Val Pro Val His Arg Thr Val Ala
65 70 75 80
Asp Ser Pro Arg Arg His Phe Pro Val Thr His Leu Gln Phe Asn Arg
85 90 95
Glu Thr Thr His Val Asp Val Asp Val Ile Asp Glu Arg Thr Val Arg
100 105 110
Val Cys Val Pro Gly Ser Pro Glu
115 120

<210> 1919
<211> 354
<212> DNA
<213> Homo sapiens

<400> 1919
nncggcgca gctgtgtcca ctgcgctgct cctgccacct cggccatctg cctctctctt
60

ccaggctgca gccatccctc ctgcactgct gaggcctggc cacgcgcac ncggccacgc
 120
 ccacctccat cctctttgcc ccttactaaa cactgggagc ccgcccggcc gcgacaggcc
 180
 aggccagcgg gaaggtgtag acgaacagcc caaaggattc agcagtgtaa gtacccacc
 240
 tacgcactta caaagtgcag gccaccgccc agccccacct ccagacacag gcggaggcca
 300
 agctcgcggg caccgtatca tcccgtagcg tctccacct acccctgcca attg
 354

<210> 1920

<211> 118

<212> PRT

<213> Homo sapiens

<400> 1920

Xaa	Gly	Arg	Ser	Cys	Val	His	Cys	Ala	Val	Pro	Ala	Thr	Ser	Ala	Ile
1				5					10					15	
Cys	Leu	Ser	Leu	Pro	Gly	Cys	Ser	His	Pro	Ser	Cys	Thr	Ala	Glu	Ala
			20					25					30		
Trp	Pro	Arg	Ala	Ser	Arg	Pro	Arg	Pro	Pro	Pro	Ser	Ser	Leu	Pro	Leu
			35				40					45			
Thr	Lys	His	Trp	Glu	Pro	Ala	Arg	Pro	Arg	Gln	Ala	Arg	Pro	Ala	Gly
			50				55				60				
Arg	Cys	Arg	Arg	Thr	Ala	Gln	Arg	Ile	Gln	Gln	Cys	Lys	Tyr	Pro	Thr
65					70				75					80	
Tyr	Ala	Leu	Thr	Lys	Cys	Arg	Pro	Pro	Pro	Ser	Pro	Thr	Ser	Arg	His
				85					90					95	
Arg	Arg	Arg	Pro	Ser	Ser	Arg	Ala	Pro	Tyr	His	Pro	Val	Pro	Ser	Pro
			100					105					110		
Pro	Tyr	Pro	Cys	Gln	Leu										
															115

<210> 1921

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1921

gaattcatct ggaggcagag agatggggaa gcgggtggga gaagagcaag aacggaaact
 60
 atttttaata caaatccagt catggtattg tatacacagc agcctctgtc ttccagaaac
 120
 ctacacggcc gccacaccaa agttaatgcc accaggcgtc atcacacaga tgtgaggtgc
 180
 aggtgccact ccacagccgt gggcagacct gggagcccag ctcctcctgg ttccaccctc
 240
 cacactgccc accccatcct tctctcccag tctccactcc atcgaagcct cccagatgac
 300
 ttcattgtggg gacaggagaa ctacagatca tggctgagaa gggcgcngtg tngtcca
 357

<210> 1922

<211> 92
 <212> PRT
 <213> Homo sapiens

<400> 1922
 Met Val Leu Tyr Thr Gln Gln Pro Leu Ser Ser Arg Asn Leu His Gly
 1 5 10 15
 Arg His Thr Lys Val Asn Ala Thr Arg Arg His His Thr Asp Val Arg
 20 25 30
 Cys Arg Cys His Ser Thr Ala Val Gly Arg Pro Gly Ser Pro Ala Pro
 35 40 45
 Pro Gly Phe Thr Leu His Thr Ala His Pro Ile Leu Leu Ser Gln Ser
 50 55 60
 Pro Leu His Arg Ser Leu Pro Asp Asp Phe Met Trp Gly Gln Glu Asn
 65 70 75 80
 Tyr Arg Ser Trp Leu Arg Arg Ala Xaa Cys Xaa Pro
 85 90

<210> 1923
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 1923
 nattnaatta tggtagagaaa aggcttatgc gttgcattgc tcgtgcttgt cacactgtca
 60
 ggtagtgcac agaagaaaga atgggttcagc aacattaaac tctcaggcta tggaatgacc
 120
 cagtatcaat atactgatca agaggggaagc aaaggccatt catttaatct gcgattgttc
 180
 ccgttgccctt taaacggacg tatcttaaat gactttttatt ggaaggcaca ggcccaattc
 240
 aatggaaaca catcgacatt gggaagcagt ccacgtcttg tagacctatt tgtagagtgg
 300
 cagaaatatg attattttcaa ggtgaagtta ggccagttta agcgaccatt cacgtttgaa
 360
 aatcccag
 368

<210> 1924
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 1924
 Met Val Arg Lys Gly Leu Cys Val Ala Leu Leu Val Leu Val Thr Leu
 1 5 10 15
 Ser Gly Ser Ala Gln Lys Lys Glu Trp Phe Ser Asn Ile Lys Leu Ser
 20 25 30
 Gly Tyr Gly Met Thr Gln Tyr Gln Tyr Thr Asp Gln Glu Gly Ser Lys
 35 40 45
 Gly His Ser Phe Asn Leu Arg Leu Phe Pro Leu Pro Leu Asn Gly Arg
 50 55 60
 Ile Leu Asn Asp Phe Tyr Trp Lys Ala Gln Ala Gln Phe Asn Gly Asn


```

65              70              75              80
Thr Ser Thr Leu Gly Ser Ser Pro Arg Leu Val Asp Leu Phe Val Glu
              85              90              95
Trp Gln Lys Tyr Asp Tyr Phe Lys Val Lys Leu Gly Gln Phe Lys Arg
              100              105              110
Pro Phe Thr Phe Glu Asn Pro
              115

```

<210> 1925

<211> 427

<212> DNA

<213> Homo sapiens

<400> 1925

```

actagtgttt ccagcaggca gcgatttaat tgttcttgca ttgaaaccca gtgtggcaag
60
ccccctgtg atttgaggct aatccctccc caccctgttc tggcacatgt gcggtgcccc
120
gggtcccccc caggctgtga gcagataaag ccttgctgtg cttcacaaca gtgactgggt
180
ctgagaaaca ggtccttgta caagcgacag ggagtgtca caccagatgt ggcagcccct
240
ccacgccagg ctgtgtggtg cagccgcctg gtatatgtgt ccatcgctga tgaaaacagc
300
gttgtgtggt gcatgactgt tgtctgtttt cttcatggaa acaaggaaac ctaagcatta
360
aaacaacacc atccacgtct ggttccttag agcaaattga agcaccaggc tctggtgcac
420
ggcgcgc
427

```

<210> 1926

<211> 104

<212> PRT

<213> Homo sapiens

<400> 1926

```

Met His His Thr Thr Leu Phe Ser Ser Ala Met Asp Thr Tyr Thr Arg
1              5              10              15
Arg Leu His His Thr Ala Trp Arg Gly Gly Ala Ala Thr Ser Gly Val
              20              25              30
Ser Thr Pro Cys Arg Leu Tyr Lys Asp Leu Phe Leu Arg Thr Ser His
              35              40              45
Cys Cys Glu Ala Thr Gln Gly Phe Ile Cys Ser Gln Pro Gly Gly Ser
              50              55              60
Pro Gly His Arg Thr Cys Ala Arg Thr Gly Trp Gly Gly Ile Ser Leu
65              70              75              80
Lys Ser Gln Gly Gly Leu Pro His Trp Val Ser Met Gln Glu Gln Leu
              85              90              95
Asn Arg Cys Leu Leu Glu Thr Leu
              100

```

<210> 1927

<211> 516

<212> DNA

<213> Homo sapiens

<400> 1927

nntctagaag actccaccta cttttcccca gactttcagc tctattctgg gaggcataaa
 60
 acatctgctt tgacggtgga ggcaaccagt agcatcaggg aaaaagttgt tgaagatcct
 120
 ctttctaact tccactcccc aaacttcctg aggatctcag aggtggaaat gagaggttcc
 180
 gaggatgagg cagctggaac agtattgcag cggctgatcc aggaacaact gcggtatggc
 240
 accccaaccg agaacatgaa cttgctggcc attcagcacc aggccacagg gaggcagga
 300
 ccagcccatc ctacaaacaa cttttcttcc acggaaaacc tcaactcaaga agaccacaa
 360
 atgggtctacc agtcagcacg ccaagaaccg cagggtcaag aacaccagng tgganncaat
 420
 acggtgatgg agaaacaggt ccggtccacg cagcctcagc agaacaacga ggaactgccc
 480
 acttacgagg aggccaaagc acagcccttc acgcgt
 516

<210> 1928

<211> 172

<212> PRT

<213> Homo sapiens

<400> 1928

Xaa	Leu	Glu	Asp	Ser	Thr	Tyr	Phe	Ser	Pro	Asp	Phe	Gln	Leu	Tyr	Ser
1				5					10					15	
Gly	Arg	His	Glu	Thr	Ser	Ala	Leu	Thr	Val	Glu	Ala	Thr	Ser	Ser	Ile
			20					25					30		
Arg	Glu	Lys	Val	Val	Glu	Asp	Pro	Leu	Cys	Asn	Phe	His	Ser	Pro	Asn
		35					40					45			
Phe	Leu	Arg	Ile	Ser	Glu	Val	Glu	Met	Arg	Gly	Ser	Glu	Asp	Ala	Ala
	50					55				60					
Ala	Gly	Thr	Val	Leu	Gln	Arg	Leu	Ile	Gln	Glu	Gln	Leu	Arg	Tyr	Gly
65					70				75					80	
Thr	Pro	Thr	Glu	Asn	Met	Asn	Leu	Leu	Ala	Ile	Gln	His	Gln	Ala	Thr
			85					90					95		
Gly	Ser	Ala	Gly	Pro	Ala	His	Pro	Thr	Asn	Asn	Phe	Ser	Ser	Thr	Glu
		100					105						110		
Asn	Leu	Thr	Gln	Glu	Asp	Pro	Gln	Met	Val	Tyr	Gln	Ser	Ser	Ala	Arg
		115					120					125			
Glu	Pro	Gln	Gly	Gln	Glu	His	Gln	Xaa	Gly	Xaa	Asn	Thr	Val	Met	Glu
	130					135					140				
Lys	Gln	Val	Arg	Ser	Thr	Gln	Pro	Gln	Gln	Asn	Asn	Glu	Glu	Leu	Pro
145					150					155					160
Thr	Tyr	Glu	Glu	Ala	Lys	Ala	Gln	Pro	Phe	Thr	Arg				
				165				170							

<210> 1929

<211> 843

<212> DNA

<213> Homo sapiens

<400> 1929

```

nmccgcggac actcagggtc tggggtcctt cttccccaag aggcctgact gcctgggtgt
60
tctccaggta catgtccttc aaggagaaat acacttcctg gcctgggcct gggccagggg
120
ccttctgggc cttgtctgga gtgccacag cagaggctgg cttcctggta ctatctgtgc
180
cagaggaccc aggcctcctg gcagccctgc cttcgggctg ggtctgaacc tgcctcacgc
240
ccacggggcc ctgagtccca caggagtcag gctcgtctga gctggggatg cagttttctg
300
aagaacggcg gctttgggct gccttctcta actctggctt cgcaccttg cttggattcc
360
tcattttctt ttttcttctt gggccactc tcctctttga gggctctctg agggccagc
420
tccatggcgt cacagatgta tgtagcaag ccatgctctc cgtcctctcc attctcgggg
480
gcagcctccc cgttggtggt cacttctcca gaagcaaact gttgatcagg cccaaacctg
540
agtctgagc agtctcagtc tctccctcct gccaaagccg caggggtcca ccctcaggct
600
ccctggtagg gaccgagggg cccggcgctt gagccccgct caatcgccgc ttcgctgga
660
agcggtcggg gctgagcttg cgcagagtgt cgacctcccc aggcaccgcc ttctcgtgct
720
tccagctctg ctgatctcg cgcagctttg ccgcagcctt gcgcttcaac ttggcgaacc
780
agcgtggtg gatcttgtac tcagtcatgg tgccacctc ccaggacct gagcaggaca
840
caa
843

```

<210> 1930

<211> 120

<212> PRT

<213> Homo sapiens

<400> 1930

```

Leu Pro Gly Cys Ser Pro Gly Thr Cys Pro Ser Arg Arg Asn Thr Leu
1          5          10          15
Pro Gly Leu Gly Leu Gly Gln Gly Pro Ser Gly Pro Cys Leu Glu Cys
20          25          30
Pro Gln Gln Arg Leu Ala Ser Trp Tyr Tyr Leu Cys Gln Arg Thr Gln
35          40          45
Ala Pro Val Gln Pro Cys Leu Trp Ala Gly Ser Glu Pro Ala Pro Arg
50          55          60
Pro Arg Ala Pro Glu Ser His Arg Ser Gln Ala Arg Leu Ser Trp Gly
65          70          75          80
Cys Ser Phe Leu Lys Asn Gly Gly Phe Gly Leu Pro Ser Leu Thr Leu
85          90          95
Ala Ser Ala Pro Cys Leu Asp Ser Ser Ser Phe Phe Phe Phe Leu Ala

```


100 105 110
 Pro Leu Ser Ser Leu Arg Ala Leu
 115 120

<210> 1931
 <211> 719
 <212> DNA
 <213> Homo sapiens

<400> 1931
 acgcgtaggc ctgagccgct ccacagccct ggggagggca gaaaaggagg aaagtaggca
 60
 gtgcaagaaa caggaggaaa cccccagag cgcagcctcc tggaagcgga agggagcact
 120
 gaagaggagg tggtagtggt tgtcagaagc tgctgagaag ccagttagat aaagcggaga
 180
 agcttcctac taggacagct tcctcccagc ccagtgtggc cacgctgggt tcctcgggtga
 240
 ccagacacgt ggccatgaat ttctcagtgt gctttattgt tgattaaatg cagtcggctc
 300
 acgaggctga ctttggaac aggaggtccg tgggtcgtgg aataagaaag ggcatcatgg
 360
 ttgcagagga aggaaggaa gccacggct gccttgggga gctttctgaa aggcagggtc
 420
 gatcatgect ctctgggcta cggctcctc acgggtggctc ctgggtggaa ctgaagtgg
 480
 ccccttggtc cctctctccc atctcagcat tagccaggac ttttggttg gcggccccag
 540
 cagggtctgcc cccttgcaac acttcttttc ccacatgac gtgccttcca aacctacttc
 600
 cagcgtcgcc ctcttcagg agcctttcat aaccacctct cccttcact ggctaaagat
 660
 gaggttgagc aactgcagga cttgggacct tgttcctgcc cctgtggctg cctggatcc
 719

<210> 1932
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 1932
 Met Pro Leu Trp Ala Thr Val Ser Ser Arg Trp Leu Leu Val Gly Thr
 1 5 10 15
 Glu Val Val Pro Leu Val Pro Leu Ser His Leu Ser Ile Ser Gln Asp
 20 25 30
 Phe Trp Leu Gly Gly Pro Ser Arg Ala Ala Pro Leu Gln His Phe Phe
 35 40 45
 Ser His Met Ile Val Pro Ser Lys Pro Thr Ser Ser Val Ala Leu Phe
 50 55 60
 Arg Glu Pro Phe Ile Thr Thr Ser Pro Phe His Trp Leu Lys Met Arg
 65 70 75 80
 Leu Ser Asn Cys Arg Thr Trp Asp Leu Val Pro Ala Pro Val Ala Ala
 85 90 95
 Trp Ile

<210> 1933
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 1933
 ggcgccgagc tgtgggcggc catggagcgc atgcctgccg acctgattat cctcgacctg
 60
 atgttgccgg gggataacgg cctcttgctg tgccagcgcc tgcgccagca atacgcaaca
 120
 ccagtgatca tgctgaccgc catggggcgaa ctgagtgate gcgtgggggg cctggaaatg
 180
 ggcgccgatg actacctgaa caaacctttc gatgcccgatg aattacttgc cggggtgcgc
 240
 gctgtactgc gtccggcggtg tgaaaaccga ccgacgttgg gcgacgtgtc gcgcc
 295

<210> 1934
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 1934
 Gly Ala Glu Leu Trp Ala Ala Met Glu Arg Met Pro Ala Asp Leu Ile
 1 5 10 15
 Ile Leu Asp Leu Met Leu Pro Gly Asp Asn Gly Leu Leu Leu Cys Gln
 20 25 30
 Arg Leu Arg Gln Gln Tyr Ala Thr Pro Val Ile Met Leu Thr Ala Met
 35 40 45
 Gly Glu Leu Ser Asp Arg Val Gly Gly Leu Glu Met Gly Ala Asp Asp
 50 55 60
 Tyr Leu Asn Lys Pro Phe Asp Ala Arg Glu Leu Leu Ala Arg Val Arg
 65 70 75 80
 Ala Val Leu Arg Pro Ala Cys Glu Asn Arg Pro Thr Leu Gly Asp Val
 85 90 95
 Ser Arg

<210> 1935
 <211> 298
 <212> DNA
 <213> Homo sapiens

<400> 1935
 accggtgtgg cgggcgcggc cttcaccacc atcggtcca cggggccgac ggcgggttcg
 60
 caatacatcg tcgatacctt cctggtagtg gtgttcgggg gggcccaaag cctgttcggc
 120
 cccatgcct cggcgttcgt gattgccag acccaatcgc tgcggagtt tttcctcagt
 180
 ggctcgatgg ccaaggtgct gacctgtcg tcggtgattc tgatcctgat gctgcgcccg
 240

caagggttgt tctccatcaa agtgcgcaag taaaggcgag cagataaggg tttaagca
298

<210> 1936

<211> 90

<212> PRT

<213> Homo sapiens

<400> 1936

Thr	Gly	Val	Ala	Gly	Ala	Ala	Phe	Thr	Thr	Ile	Gly	Ser	Thr	Gly	Pro
1				5				10					15		
Thr	Ala	Gly	Ser	Gln	Tyr	Ile	Val	Asp	Thr	Phe	Leu	Val	Val	Val	Phe
		20						25				30			
Gly	Gly	Ala	Gln	Ser	Leu	Phe	Gly	Pro	Ile	Ala	Ser	Ala	Phe	Val	Ile
		35					40					45			
Ala	Gln	Thr	Gln	Ser	Leu	Ser	Glu	Phe	Phe	Leu	Ser	Gly	Ser	Met	Ala
	50					55					60				
Lys	Val	Leu	Thr	Leu	Ser	Val	Ile	Leu	Ile	Leu	Met	Leu	Arg	Pro	
65				70				75				80			
Gln	Gly	Leu	Phe	Ser	Ile	Lys	Val	Arg	Lys						
				85				90							

<210> 1937

<211> 513

<212> DNA

<213> Homo sapiens

<400> 1937

gcacggcgca cagtaacacc aactcgaaag agaccttatg aatgcaaggt gtgcgggaaa
60
gcctttaatt ctccaattt atttcaaatt catcaaagaa ctcacactgg aaagagggtcc
120
tataaatgta gggaaatagt gagagccttc acagtttcca gtttctttcg aaaacatgga
180
aaaatgcata ctggagaaaa acgctatgaa tgtaaatact gtggaaaacc tatcgattat
240
cccagtttat ttcaaattca tgtagaact cactctggag aaaaacccta caaatgtaaa
300
caatgtggta aagccttcac ttccgcaggt tacgttcgga cacatgaaat cagatctcac
360
gcgctggaga aatcccacca atgtcaggaa tgtgggaaga aactcagttg ttccagttcc
420
cttcacagac atgaaagaac tcatagtggg gaaaaactct acgaatgtca aaaatgtgac
480
caagtcttta gatgtccac gtcccttcac gcg
513

<210> 1938

<211> 171

<212> PRT

<213> Homo sapiens

<400> 1938

Ala Arg Arg Thr Val Thr Pro Thr Arg Lys Arg Pro Tyr Glu Cys Lys


```

      1           5           10           15
Val Cys Gly Lys Ala Phe Asn Ser Pro Asn Leu Phe Gln Ile His Gln
      20           25           30
Arg Thr His Thr Gly Lys Arg Ser Tyr Lys Cys Arg Glu Ile Val Arg
      35           40           45
Ala Phe Thr Val Ser Ser Phe Phe Arg Lys His Gly Lys Met His Thr
      50           55           60
Gly Glu Lys Arg Tyr Glu Cys Lys Tyr Cys Gly Lys Pro Ile Asp Tyr
      65           70           75           80
Pro Ser Leu Phe Gln Ile His Val Arg Thr His Ser Gly Glu Lys Pro
      85           90           95
Tyr Lys Cys Lys Gln Cys Gly Lys Ala Phe Ile Ser Ala Gly Tyr Val
      100          105          110
Arg Thr His Glu Ile Arg Ser His Ala Leu Glu Lys Ser His Gln Cys
      115          120          125
Gln Glu Cys Gly Lys Lys Leu Ser Cys Ser Ser Ser Leu His Arg His
      130          135          140
Glu Arg Thr His Ser Gly Gly Lys Leu Tyr Glu Cys Gln Lys Cys Asp
      145          150          155          160
Gln Val Phe Arg Cys Pro Thr Ser Leu His Ala
      165          170

```

<210> 1939

<211> 1233

<212> DNA

<213> Homo sapiens

<400> 1939

```

gccggcagcg ccgctcccca gggagggagt ccgcagcctg aggtcttctc caagaaaaaa
60
aaagaaaaaa aaacaacatg gctgcaaagg agaaactgga ggcagtgtta aatgtggccc
120
tgagggtgcc aagcatcatg ctgttgatg tcctgtacag atgggatgtc agctcctttt
180
tccagcagat ccaaagaagt agccttagta ataaccctct tttccagtat aagtatttgg
240
ctcttaatat gcattatgta gggtatatct taagtgtggt gctgctaaca ttgccagggc
300
agcatctggt tcagctttat ctatatTTTT tgactgctct gctcctctat gctggacatc
360
aaatttccag ggactatggt cggagtgaac tggggtttgc ctatgagggga ccaatgtatt
420
tagaacctct ctctatgaat cgggtttacca cagccttaat aggtcagttg gtggtgtgta
480
ctttatgctc ctgtgtcatg aaaacaaagc agatttggtt gttttcagct cacatgcttc
540
ctctgctagc acgactctgc cttgttcctt tggagacaat tgctatcatc aataaatttg
600
ctatgatttt tactggattg gaagttctct attttcttgg gtctaattct ttggtacctt
660
ataaccttgc taaatctgca tacagagaat tgggtcaggt agtggaggta tatggccttc
720
tcgccttggg aatgtccctg tggaatcaac tggtagtccc tgttcttttc atgggtttct
780

```


ggctcgtctt atttgctctt cagattttact cctatttcag tactcgagat cagcctgcat
 840
 cacgtgagag gcttcttttc ctttttctga caaggtaatt aataagagcc tatgatacta
 900
 tatataacct tagaaagaga aaactttgat ctaggaatag taagttttgc agattacttt
 960
 ttcggttcac gttacacaac ttcgtatttt gttaagatag gatttttcatt cactggatac
 1020
 ctaggtttgg caatgcagag aggtgctaac ataataatgt ggtttatttg gctgcactat
 1080
 ggaccagagt gtagcaaag atttgtggaa aggtacatag cacatcgtaa aagtattttt
 1140
 tcaatttcaa gttaaaatta ttgggtcaat cagaaaaaag tatattataa aaataacatt
 1200
 tattgagtat tttaaatgta ccataccatt naa
 1233

<210> 1940

<211> 266

<212> PRT

<213> Homo sapiens

<400> 1940

Met	Ala	Ala	Lys	Glu	Lys	Leu	Glu	Ala	Val	Leu	Asn	Val	Ala	Leu	Arg
1			5						10					15	
Val	Pro	Ser	Ile	Met	Leu	Leu	Asp	Val	Leu	Tyr	Arg	Trp	Asp	Val	Ser
			20					25					30		
Ser	Phe	Phe	Gln	Gln	Ile	Gln	Arg	Ser	Ser	Leu	Ser	Asn	Asn	Pro	Leu
			35				40					45			
Phe	Gln	Tyr	Lys	Tyr	Leu	Ala	Leu	Asn	Met	His	Tyr	Val	Gly	Tyr	Ile
			50				55				60				
Leu	Ser	Val	Val	Leu	Leu	Thr	Leu	Pro	Arg	Gln	His	Leu	Val	Gln	Leu
65						70				75				80	
Tyr	Leu	Tyr	Phe	Leu	Thr	Ala	Leu	Leu	Leu	Tyr	Ala	Gly	His	Gln	Ile
					85				90					95	
Ser	Arg	Asp	Tyr	Val	Arg	Ser	Glu	Leu	Gly	Phe	Ala	Tyr	Glu	Gly	Pro
			100					105					110		
Met	Tyr	Leu	Glu	Pro	Leu	Ser	Met	Asn	Arg	Phe	Thr	Thr	Ala	Leu	Ile
			115					120					125		
Gly	Gln	Leu	Val	Val	Cys	Thr	Leu	Cys	Ser	Cys	Val	Met	Lys	Thr	Lys
			130				135					140			
Gln	Ile	Trp	Leu	Phe	Ser	Ala	His	Met	Leu	Pro	Leu	Leu	Ala	Arg	Leu
145					150				155					160	
Cys	Leu	Val	Pro	Leu	Glu	Thr	Ile	Ala	Ile	Ile	Asn	Lys	Phe	Ala	Met
					165				170					175	
Ile	Phe	Thr	Gly	Leu	Glu	Val	Leu	Tyr	Phe	Leu	Gly	Ser	Asn	Leu	Leu
			180					185					190		
Val	Pro	Tyr	Asn	Leu	Ala	Lys	Ser	Ala	Tyr	Arg	Glu	Leu	Val	Gln	Val
			195					200					205		
Val	Glu	Val	Tyr	Gly	Leu	Leu	Ala	Leu	Gly	Met	Ser	Leu	Trp	Asn	Gln
			210				215					220			
Leu	Val	Val	Pro	Val	Leu	Phe	Met	Val	Phe	Trp	Leu	Val	Leu	Phe	Ala
225					230					235				240	
Leu	Gln	Ile	Tyr	Ser	Tyr	Phe	Ser	Thr	Arg	Asp	Gln	Pro	Ala	Ser	Arg

245 250 255
 Glu Arg Leu Leu Phe Leu Phe Leu Thr Arg
 260 265

<210> 1941
 <211> 411
 <212> DNA
 <213> Homo sapiens

<400> 1941
 ctggggccct gcccacagc atcatgatgg ggaaactccc cctggggggtc gtctcccctt
 60
 atgtgaagat gagttcgggg ggctacacgg acccctgaa attctacgcc accagctact
 120
 gcacagccta cggtcggggag gatttcaagc cccgtgtggg cagtcacgta ggcaccggct
 180
 acaaatcaaa tttccagccc gtggtctcat gccaaagccag tctggaggcc ttagacaacc
 240
 cgccagggg ggaacaagcc caggaccatt tccagtctgt ggccagccag agctaccgac
 300
 ccctggaggt gcctgacggc aagcatcccc tgccctggag catgcgccag accagctcag
 360
 gctatgggcg ggagaagccc agtgcggggtc cccccaccaa ggagggtccgg a
 411

<210> 1942
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 1942
 Met Met Gly Lys Leu Pro Leu Gly Val Val Ser Pro Tyr Val Lys Met
 1 5 10 15
 Ser Ser Gly Gly Tyr Thr Asp Pro Leu Lys Phe Tyr Ala Thr Ser Tyr
 20 25 30
 Cys Thr Ala Tyr Gly Arg Glu Asp Phe Lys Pro Arg Val Gly Ser His
 35 40 45
 Val Gly Thr Gly Tyr Lys Ser Asn Phe Gln Pro Val Val Ser Cys Gln
 50 55 60
 Ala Ser Leu Glu Ala Leu Asp Asn Pro Ala Arg Gly Glu Gln Ala Gln
 65 70 75 80
 Asp His Phe Gln Ser Val Ala Ser Gln Ser Tyr Arg Pro Leu Glu Val
 85 90 95
 Pro Asp Gly Lys His Pro Leu Pro Trp Ser Met Arg Gln Thr Ser Ser
 100 105 110
 Gly Tyr Gly Arg Glu Lys Pro Ser Ala Gly Pro Pro Thr Lys Glu Val
 115 120 125
 Arg

<210> 1943
 <211> 386
 <212> DNA
 <213> Homo sapiens

<400> 1943

nagaaacatt cagggctcca acaggggtgga aaacatgagg ctgcaggatg tttaacagga
60
gtctttgctg cagctcctct tggagccttt aacgagatac tatcatgcct atgaactgcc
120
acacagatgt acatggcata gcaactgccc aaagtatcag cccaaggaac cctactttcc
180
ccagcaacat ctaactcaga aatgctgac tttggcctca atctgggtccc aaaatacctc
240
cagggatatt tgggcttcgg tgtgttcaca cacttgggtca tgtaaactcg aacacagact
300
ctctctgcct tggcaagaac cccccacacc cccatagata attacaccct ttggttctcc
360
ctctgcaatc tcacctgcta gagacg
386

<210> 1944

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1944

Met	Gly	Val	Trp	Gly	Val	Leu	Ala	Lys	Ala	Glu	Arg	Val	Cys	Val	Gln
1				5				10					15		
Ile	Tyr	Met	Thr	Lys	Cys	Val	Asn	Thr	Pro	Lys	Pro	Lys	Ile	Pro	Trp
			20				25					30			
Arg	Tyr	Phe	Gly	Thr	Arg	Leu	Arg	Pro	Lys	Ile	Ser	Ile	Ser	Glu	Leu
		35				40					45				
Asp	Val	Ala	Gly	Glu	Ser	Arg	Val	Pro	Trp	Ala	Asp	Thr	Phe	Gly	Gln
	50				55				60						
Cys	Tyr	Ala	Met	Tyr	Ile	Cys	Val	Ala	Val	His	Arg	His	Asp	Ser	Ile
65					70				75					80	
Ser	Leu	Lys	Ala	Pro	Arg	Gly	Ala	Ala	Ala	Lys	Thr	Pro	Val	Lys	His
				85				90						95	
Pro	Ala	Ala	Ser	Cys	Phe	Pro	Pro	Cys	Trp	Ser	Pro	Glu	Cys	Phe	
			100					105						110	

<210> 1945

<211> 443

<212> DNA

<213> Homo sapiens

<400> 1945

nacgcgtcac gaagcgcgct cggcccacgt ggctccaagg gcgtccacgc gccctcctc
60
gaccgattgg tgtcgaacat ggcacggtgg catgcgacgc gcaccaagat ccagctcaag
120
ctcgcgatcc agcgantcgg catgctacag gagaaaaaag ccgcactgca taaaaaagt
180
cgactggaaa ttgcggacnn tctagacgc caaaagcttg aatctgcgcg cgtcaaaacc
240
gaatcgctga tcatggacga tatacatttg gagttgcttg aactgcttga gctctactgt
300

gagacactct atgccagatt cggattacta gaaggacgcg acaatgagcc tgatgatgcg
 360
 atccgcgagc cgatgatgcg cattattcat gcggctcatc gcacagaggt gaaggaacta
 420
 catgtgctcc aaaacatgct gaa
 443

<210> 1946
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 1946
 Xaa Ala Ser Arg Ser Ala Leu Gly Pro Arg Gly Ser Lys Gly Val His
 1 5 10 15
 Ala Pro Leu Leu Asp Arg Leu Val Ser Asn Met Ala Arg Trp His Ala
 20 25 30
 Thr Arg Thr Lys Ile Gln Leu Lys Leu Ala Ile Gln Arg Xaa Gly Met
 35 40 45
 Leu Gln Glu Lys Lys Ala Ala Leu His Lys Lys Val Arg Leu Glu Ile
 50 55 60
 Ala Asp Xaa Arg Arg Arg Gln Lys Leu Glu Ser Ala Arg Val Lys Thr
 65 70 75 80
 Glu Ser Leu Ile Met Asp Asp Ile His Leu Glu Leu Leu Glu Leu Leu
 85 90 95
 Glu Leu Tyr Cys Glu Thr Leu Tyr Ala Arg Phe Gly Leu Leu Glu Gly
 100 105 110
 Arg Asp Asn Glu Pro Asp Asp Ala Ile Arg Glu Pro Met Ile Ala Ile
 115 120 125
 Ile His Ala Ala His Arg Thr Glu Val Lys Glu Leu His Val Leu Gln
 130 135 140
 Asn Met Leu
 145

<210> 1947
 <211> 472
 <212> DNA
 <213> Homo sapiens

<400> 1947
 cggccgtgta ggccgtgacg gtgaccaaca gagccacagc gggcccgcgtg taggcgggag
 60
 gactgtgccc caggtgcagg agggtcagat ggaaacaaaa ggcgagggcg gcctccacaa
 120
 gcgccccgtg gggcacggat gtgcgcaggg ccgagctgca gctctggggc atgaggctct
 180
 gcagcaggtg caggtcactg agctcccagg cccagcagag gcgcgtcagg gtgcaggcgg
 240
 cctgcatgcc cagcccctgt gccgccagct tcagcagcgt gccaggcaga gactcctcgg
 300
 ccatgaggaa ctccctgcagg gacacgggtg ggttggccga ggccccgtcc aaggtgaccc
 360
 cgtgcgccag gaagagcagg aagagcaggg tgagcagcag gtcaggccca aagtccccag
 420

cccagggccc gagctcgaac agcgtcctca tctccaggaa gcaggccccc ag
472

<210> 1948

<211> 150

<212> PRT

<213> Homo sapiens

<400> 1948

```
Met Arg Thr Leu Phe Glu Leu Gly Pro Trp Ala Gly Asp Phe Gly Pro
 1           5           10           15
Asp Leu Leu Leu Thr Leu Leu Phe Leu Leu Phe Leu Ala His Gly Val
 20           25           30
Thr Leu Asp Gly Ala Ser Ala Asn Pro Thr Val Ser Leu Gln Glu Phe
 35           40           45
Leu Met Ala Glu Glu Ser Leu Pro Gly Thr Leu Leu Lys Leu Ala Ala
 50           55           60
Gln Gly Leu Gly Met Gln Ala Ala Cys Thr Leu Thr Arg Leu Cys Trp
 65           70           75           80
Ala Trp Glu Leu Ser Asp Leu His Leu Leu Gln Ser Leu Met Ala Gln
 85           90           95
Ser Cys Ser Ser Ala Leu Arg Thr Ser Val Pro His Gly Ala Leu Val
100           105           110
Glu Ala Ala Cys Ala Phe Cys Phe His Leu Thr Leu Leu His Leu Arg
115           120           125
His Ser Pro Pro Ala Tyr Ser Gly Pro Ala Val Ala Leu Leu Val Thr
130           135           140
Val Thr Ala Tyr Thr Ala
145           150
```

<210> 1949

<211> 395

<212> DNA

<213> Homo sapiens

<400> 1949

```
acgcgttgag ggaggcgaca tgcttcatga gcgcttggcg ccactgctca agcgacatct
60
gcccccttgct gatgttgcaa ggcggacagg acggcatgta attcgactcg acgtcacgct
120
cggatgcct cgacgggacg ctcaaaagct tccattggcc attcgggggt cgcttggctct
180
cgaccgcgcg tacaaccggg tctacatggt cgccatgccca ccgatcgggc aatggcattc
240
cacagtacgc gcagcggccg tcgtatttgc gccggagccg atcgcgctgt gctttcgtea
300
gccggctcac gctttatgct ccacggcagg tgtggcagca tcttggcagg cgactccaag
360
atccgcgcct gcgtccagct tgacggcgcc gggtt
395
```

<210> 1950

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1950

```

Met Leu His Glu Arg Leu Ala Pro Leu Leu Lys Arg His Leu Pro Leu
 1             5             10             15
Ala Asp Val Ala Arg Arg Thr Gly Arg His Val Ile Arg Leu Asp Val
          20             25             30
Thr Leu Arg Met Pro Arg Arg Asp Ala His Lys Leu Pro Leu Ala Ile
          35             40             45
Arg Gly Ser Leu Gly Leu Asp Arg Ala Tyr Asn Arg Val Tyr Met Val
          50             55             60
Ala Met Pro Pro Ile Gly Gln Trp His Ser Thr Val Arg Ala Ala Ala
65             70             75             80
Val Val Phe Ala Pro Glu Pro Ile Ala Leu Cys Phe Arg Gln Pro Ala
          85             90             95
His Ala Leu Cys Ser Thr Ala Gly Val Ala Ala Ser Trp Gln Ala Thr
          100            105            110
Pro Arg Ser Ala Pro Ala Ser Ser Leu Thr Ala Pro Gly
          115            120            125

```

<210> 1951

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1951

```

cggcgccgcg ctctccgctc ccggggccccc gccgccaccg cgccccccgc gggagatgga
60
acagcggaac cggctcgggtg ccctcggata cctgccgcct ctgctgctgc atgccttgc
120
gctcttcgtg gccgacgtg cattcacaga agtccccaaa gatgtgacag tacgggaggg
180
agacgacatc gaaatgccct gcgcgttccg ggccagcgga gccacctcgt attcgttgga
240
gattcagtgg tggtaacctca aggagccacc ccgggagctg ctgcacgagc tggcgctcag
300
cgtgccgggc gcccgagca aggtaacaaa taaggatgca actaaaatca gcaccgtacg
360
cgt
363

```

<210> 1952

<211> 110

<212> PRT

<213> Homo sapiens

<400> 1952

```

Arg Pro Pro Pro Leu Arg Ser Arg Ala Pro Ala Ala Thr Ala Pro Pro
 1             5             10             15
Ala Gly Asp Gly Thr Ala Glu Pro Ala Arg Cys Pro Arg Ile Pro Ala
          20             25             30
Ala Ser Ala Ala Ala Cys Pro Ala Ala Leu Arg Gly Arg Arg Cys Ile
          35             40             45
His Arg Ser Pro Gln Arg Cys Asp Ser Thr Gly Gly Arg Arg His Arg

```


50		55		60
Asn Ala Leu Arg Val	Pro Gly Gln Arg Ser His	Leu Val Phe Ala Gly		
65	70	75	80	
Asp Ser Val Val Val	Pro Gln Gly Ala Thr Pro	Gly Ala Ala Ala Arg		
	85	90	95	
Ala Gly Ala Gln Arg	Ala Gly Arg Pro Glu Gln	Gly Asn Lys		
100	105	110		

<210> 1953
 <211> 329
 <212> DNA
 <213> Homo sapiens

<400> 1953
 acgcgtcagc ctgagcccaa taactataaa agagtcgcaa ccatgactgt gctattgagt
 60
 gagcgagccc agattttccg ggggtgccgat gcctacgcgg tgctggacta cgtcaaccag
 120
 catgtgggca gccactgcat tcgcctgcct cccaagggcc ggccacgggc gagtatcagc
 180
 catcgacact ttgccagcct ggacctgtgc cgcacagct acggcgctcc ggtacgggctc
 240
 acatcggtgg cgctggagac catctatcac ctgcagatcc tggtgagcgg gcattgccgc
 300
 tccagctccc gtggtgagga tgacgtggn
 329

<210> 1954
 <211> 109
 <212> PRT
 <213> Homo sapiens

Thr Arg Gln Pro Glu Pro Asn Asn Tyr Lys Arg Val Ala Thr Met Thr	
1	5 10 15
Val Leu Leu Ser Glu Arg Ser Gln Ile Phe Arg Gly Ala Asp Ala Tyr	
	20 25 30
Ala Val Ser Asp Tyr Val Asn Gln His Val Gly Ser His Cys Ile Arg	
	35 40 45
Leu Pro Pro Lys Gly Arg Pro Arg Ala Ser Ile Ser His Arg Thr Phe	
	50 55 60
Ala Ser Leu Asp Leu Cys Arg Ile Ser Tyr Gly Ala Pro Val Arg Val	
65	70 75 80
Thr Ser Val Ala Leu Glu Thr Ile Tyr His Leu Gln Ile Leu Leu Ser	
	85 90 95
Gly His Cys Arg Ser Ser Ser Arg Gly Glu Asp Asp Val	
	100 105

<210> 1955
 <211> 415
 <212> DNA
 <213> Homo sapiens

<400> 1955

acgcgtggct cgacgaaaac caagtacgag acatgcccga caaggtacta tcacacatgg
 60
 tggaatactg ctggggggcg ttcacagaca acatcaaata cgctgtagct gcccataatt
 120
 ggaaagggcc acacaagccc gatagtgacc atcaacggat cattgtaggc tatttcaaaa
 180
 ccgccaaca agccatgaac gcagcaaac aattccactg gaacacccgg ctacaacaac
 240
 aatggaaaac atggatactc ccagtccaca acggcaccgt gtccgagttt ttcacccaac
 300
 aaaaaacttt gctagacgag caagacgata gcaatagcga gctgccggag catctacaaa
 360
 acgtcatgtg cggcaaaaaca ctccaccacc aagacgacac catatcgtgg tgcac
 415

<210> 1956

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1956

Met	Pro	Asp	Lys	Val	Leu	Ser	His	Met	Val	Glu	Tyr	Cys	Trp	Gly	Arg
1				5					10					15	
Phe	Thr	Asp	Asn	Ile	Lys	Tyr	Ala	Val	Ala	Ala	Gln	Tyr	Trp	Lys	Gly
			20					25					30		
Pro	His	Lys	Pro	Asp	Ser	Asp	His	Gln	Arg	Ile	Ile	Val	Gly	Tyr	Phe
		35					40					45			
Lys	Thr	Ala	Lys	Gln	Ala	Met	Asn	Ala	Ala	Lys	Gln	Phe	His	Trp	Asn
	50					55					60				
Thr	Arg	Leu	Gln	Gln	Gln	Trp	Lys	Thr	Trp	Ile	Leu	Pro	Val	His	Asn
65				70					75					80	
Gly	Thr	Val	Ser	Glu	Phe	Phe	Thr	Gln	Gln	Lys	Thr	Leu	Leu	Asp	Glu
			85					90						95	
Gln	Asp	Asp	Ser	Asn	Ser	Glu	Leu	Pro	Glu	His	Leu	Gln	Asn	Val	Met
			100					105					110		
Cys	Gly	Lys	Thr	Leu	His	His	Gln	Asp	Asp	Thr	Ile	Ser	Trp	Cys	
		115					120						125		

<210> 1957

<211> 526

<212> DNA

<213> Homo sapiens

<400> 1957

acgcgttccg gagagatttt cctaacctct ctccgagctg ctgagccgat cggtgaccac
 60
 caggagctcc tccctgtgag gacaaagttc cagagtcggg gtcacggggc ttacttattg
 120
 gggaggaggc ccgccggggc cgcagtgggc gagggggcct tggcgcgctc ctgggaggtc
 180
 agacctggca cagtgtggcg aaggtttcca gtgcgatccc gagtcgaggg cgcatttcgc
 240
 ggtgactgcc agcatgaacc gcagccgacc gagttctgcg atcggggcttc tccgcagagt
 300

ggggaccctg gggaaggcgc caacttctct cctctgccca cctcactccc cgcgggcgtc
 360
 cctggggcgc ctgcccgggc cgcactgggc ggctccatc gtcccttccc tctacctgca
 420
 ctgccccagg cgggagagag gccttggccc nncgagggac cagctgcagc gggcagcggg
 480
 gtcctgctcc cccaaccccc gcccatggc acggggctga accggt
 526

<210> 1958
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 1958
 Thr Arg Ser Gly Glu Ile Phe Leu Thr Ser Leu Arg Ala Ala Glu Pro
 1 5 10 15
 Ile Gly Asp His Gln Glu Leu Leu Pro Val Arg Thr Lys Phe Gln Ser
 20 25 30
 Arg Gly His Gly Pro Tyr Leu Leu Gly Arg Arg Pro Ala Gly Ala Ala
 35 40 45
 Val Gly Glu Gly Pro Leu Ala Arg Ser Trp Glu Val Arg Pro Gly Thr
 50 55 60
 Val Trp Arg Arg Phe Pro Val Arg Ser Arg Val Glu Gly Ala Phe Arg
 65 70 75 80
 Gly Asp Cys Gln His Glu Pro Gln Pro Thr Glu Phe Cys Asp Arg Ala
 85 90 95
 Ser Pro Gln Ser Gly Asp Pro Gly Glu Gly Ala Asn Phe Ser Pro Leu
 100 105 110
 Pro Thr Ser Leu Pro Ala Gly Val Pro Gly Pro Pro Ala Arg Ala Ala
 115 120 125
 Leu Gly Gly Leu His Arg Pro Phe Pro Leu Pro Ala Leu Pro Gln Ala
 130 135 140
 Gly Glu Arg Pro Trp Pro Xaa Glu Gly Pro Ala Ala Ala Gly Ser Gly
 145 150 155 160
 Val Leu Leu Pro Gln Pro Pro Pro His Gly Thr Gly Leu Asn Arg
 165 170 175

<210> 1959
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 1959
 gtgcaccgga cggctcctcc aacggatcat ggcacggccc agcgggaaggc tcacccgagt
 60
 cgtcagaagg atcagggcgc ttgtcgtcgt cagacttcag gacatccac gacatggtga
 120
 acggctggga ggagaccttg tccccgtcgg tcttggcgcc gacaacaaca ccgctcatgg
 180
 tgtattttcc ggcagtgtg aagaaccagt gggcatgctg atgacccttg atcggcagt
 240
 aggtcccttt gaccacctga tatgtgtcat cagcgaggaa ggtgccgagt ttggcgctct
 300

cgctgcctc gggatgaattg ccgaggaggt acatcttgcc tggacccgta atcgcggtga
 360
 agtcgacgcg caacgcgt
 378

<210> 1960
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 1960
 Met Tyr Leu Leu Gly Asn Ser Pro Glu Ala Asp Glu Asn Ala Lys Leu
 1 5 10 15
 Gly Thr Phe Leu Ala Asp Asp Thr Tyr Gln Val Val Lys Gly Ala Ser
 20 25 30
 Leu Pro Ile Lys Gly His Gln His Ala His Trp Phe Phe Thr His Ala
 35 40 45
 Gly Lys Tyr Thr Met Ser Gly Val Val Val Gly Ala Lys Thr Asp Gly
 50 55 60
 Asp Lys Val Ser Ser Gln Pro Phe Thr Met Ser Trp Asp Val Leu Lys
 65 70 75 80
 Ser Asp Asp Asp Lys Arg Pro Asp Pro Ser Asp Asp Ser Gly Glu Pro
 85 90 95
 Ser Ala Gly Pro Ser His Asp Pro Leu Glu Glu Pro Ser Gly Ala
 100 105 110

<210> 1961
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 1961
 ggatccaccc cggaaaccgg caggatgaag ggggcaagtg aggagaagct ggcattctgtg
 60
 tccaacctgg tcaactgtgtt tgagaatagc aggacccag aagcagcacc cagaggccag
 120
 aggctagagg acgtgcatca ccgccctgag tgcaggcctc ccgagtcccc aggaccacgg
 180
 gagaagacga atgtcgggga ggccgtgggg tctgagccca ggacagtcag caggaggtag
 240
 ctgaactccc tgaagaacaa gctgtccagc gaagcctgga ggaaatcttg ccagcctgtg
 300
 accctctcag gatcggggac gcaggagcca gagaagaaga tcgtccagga gctgctggag
 360
 acagagcagg cctatgtggc gcgc
 384

<210> 1962
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 1962
 Gly Ser Thr Pro Glu Thr Gly Arg Met Lys Gly Ala Ser Glu Glu Lys


```

1           5           10           15
Leu Ala Ser Val Ser Asn Leu Val Thr Val Phe Glu Asn Ser Arg Thr
                20           25           30
Pro Glu Ala Ala Pro Arg Gly Gln Arg Leu Glu Asp Val His His Arg
                35           40           45
Pro Glu Cys Arg Pro Pro Glu Ser Pro Gly Pro Arg Glu Lys Thr Asn
                50           55           60
Val Gly Glu Ala Val Gly Ser Glu Pro Arg Thr Val Ser Arg Arg Tyr
65           70           75           80
Leu Asn Ser Leu Lys Asn Lys Leu Ser Ser Glu Ala Trp Arg Lys Ser
                85           90           95
Cys Gln Pro Val Thr Leu Ser Gly Ser Gly Thr Gln Glu Pro Glu Lys
                100           105           110
Lys Ile Val Gln Glu Leu Leu Glu Thr Glu Gln Ala Tyr Val Ala Arg
                115           120           125

```

<210> 1963
 <211> 323
 <212> DNA
 <213> Homo sapiens

```

<400> 1963
nnncccttcc taccctccca tactccccac ccctcttctct cccctgtgtc tgagcttgca
60
ggcatgaaac acccacctgg cctctctccc tctgttttgc cccttctgtc gtctctctcc
120
cacagctgcc tggctcttcg gcgtcagtc accaccttct gcagctctcc ctcacctgg
180
cgaccactca ggcatgcac tcgcggggccc ccttcagacc tctcggggtc atcttccct
240
tccctggcca ttatttttct tcatctgggc tgggcccgga ggggcgttcc ccccttctct
300
cttctttctt tttttttctc ttt
323

```

<210> 1964
 <211> 107
 <212> PRT
 <213> Homo sapiens

```

<400> 1964
Xaa Pro Phe Leu Pro Ser His Thr Pro His Pro Ser Ser Ser Pro Cys
1           5           10           15
Ala Glu Leu Ala Gly Met Lys His Pro Pro Gly Leu Ser Pro Ser Val
                20           25           30
Leu Pro Leu Leu Ser Ser Leu Ser His Ser Cys Leu Ala Leu Arg Arg
                35           40           45
Gln Ser Thr Thr Phe Cys Ser Ser Pro Ser Pro Trp Arg Pro Leu Arg
                50           55           60
His Ala Ser Arg Gly Pro Pro Ser Asp Leu Ser Gly Ser Ser Ser Pro
65           70           75           80
Ser Leu Ala Ile Ile Phe Leu His Leu Gly Trp Ala Arg Arg Gly Val
                85           90           95
Pro Pro Leu Pro Leu Leu Ser Phe Phe Phe Ser

```


100

105

<210> 1965

<211> 1416

<212> DNA

<213> Homo sapiens

<400> 1965

cggetggggc aggagctgga cgacgccacc atggacctgg agcagcagcg gcagcttggtg
60
agcaccctgg agaagaagca gcgcaagttt gaccagcttc tggcagagga gaaggcagct
120
gtacttcggg cagtggagga acgtgagcgg gccgaggcag agggccggga gcgtgaggct
180
cgggccctgt cactgacacg ggcactggag gaggagcagg aggcacgtga ggagctggag
240
cggcagaacc gggccctgcg ggctgagctg gaggcactgc tgagcagcaa ggatgacgtc
300
ggcaagagcg tgcagagct ggaacgagcc tgccgggtag cagaacaggc agccaatgat
360
ctgcgagcac aggtgacaga actggaggat gagctgacag cggccgagga tgccaagctg
420
cgtctggagg tgactgtgca ggctctcaag actcagcatg agcgtgacct gcagggccgt
480
gatgaggctg gtgaagagag gcggaggcag ctggccaagc agctgagaga tgcagagggtg
540
gagcgggatg aggagcggaa gcagcgcact ctggccgtgg ctgcccgcaa gaagctggag
600
ggagagctgg aggagctgaa ggctcagatg gcctctgccg gccagggcaa ggaggaggcg
660
gtgaagcagc ttcgcaagat gcaggcccg atgaaggagc tatggcgga ggtggaggag
720
acacgcacct cccgggagga gatcttctcc cagaatcggg aaagtgaaaa gcgcctcaag
780
ggcctggagg ctgagggtgt gcggctgcag gaggaactgg ccgcctcgga ccgtgctcgg
840
cggcaggccc agcaggaccg ggatgagatg gcagatgagg tggccaatgg taaccttagc
900
aaggcagcca ttctggagga gaagcgtcag ctggaggggc gcctggggca gttggaggaa
960
gagctggagg aggagcagac anactcagag ctgctcaatg accgctaccg caagctgctc
1020
ctgcaggtag agtactgac cacagagctg tcagctgagc gcagtttctc agccaaggca
1080
gagagcgggc ggcagcagct ggaacggcag atccaggagc tacggggacg cctgggtgag
1140
gaggatgctg gggccctgct ccgccacaag atgaccattg ctgcccttga gtctaagttg
1200
gcccaggctg aggagcagct agagcaagag accagagagc gcctcctctc tggaaaagctg
1260
gtgccccaaa gtaagaagcg gtttaaagag gtggtgctcc aggtggagga ggagcggagg
1320
gtggctgacc agctccggga ccagctggag aagggaacc ttcgagtcaa gcagctgaag
1380

cggcagctgg aggaggccga ggaggaggca tcccgg
1416

<210> 1966

<211> 472

<212> PRT

<213> Homo sapiens

<400> 1966

Arg	Leu	Gly	Gln	Glu	Leu	Asp	Asp	Ala	Thr	Met	Asp	Leu	Glu	Gln	Gln
1				5					10					15	
Arg	Gln	Leu	Val	Ser	Thr	Leu	Glu	Lys	Lys	Gln	Arg	Lys	Phe	Asp	Gln
		20						25					30		
Leu	Leu	Ala	Glu	Glu	Lys	Ala	Ala	Val	Leu	Arg	Ala	Val	Glu	Glu	Arg
	35					40						45			
Glu	Arg	Ala	Glu	Ala	Glu	Gly	Arg	Glu	Arg	Glu	Ala	Arg	Ala	Leu	Ser
50					55					60					
Leu	Thr	Arg	Ala	Leu	Glu	Glu	Glu	Gln	Glu	Ala	Arg	Glu	Glu	Leu	Glu
65				70					75					80	
Arg	Gln	Asn	Arg	Ala	Leu	Arg	Ala	Glu	Leu	Glu	Ala	Leu	Leu	Ser	Ser
		85						90						95	
Lys	Asp	Asp	Val	Gly	Lys	Ser	Val	His	Glu	Leu	Glu	Arg	Ala	Cys	Arg
	100							105					110		
Val	Ala	Glu	Gln	Ala	Ala	Asn	Asp	Leu	Arg	Ala	Gln	Val	Thr	Glu	Leu
	115					120						125			
Glu	Asp	Glu	Leu	Thr	Ala	Ala	Glu	Asp	Ala	Lys	Leu	Arg	Leu	Glu	Val
130						135					140				
Thr	Val	Gln	Ala	Leu	Lys	Thr	Gln	His	Glu	Arg	Asp	Leu	Gln	Gly	Arg
145				150						155				160	
Asp	Glu	Ala	Gly	Glu	Arg	Arg	Arg	Gln	Leu	Ala	Lys	Gln	Leu	Arg	
			165					170					175		
Asp	Ala	Glu	Val	Glu	Arg	Asp	Glu	Glu	Arg	Lys	Gln	Arg	Thr	Leu	Ala
	180						185						190		
Val	Ala	Ala	Arg	Lys	Lys	Leu	Glu	Gly	Glu	Leu	Glu	Glu	Leu	Lys	Ala
	195					200						205			
Gln	Met	Ala	Ser	Ala	Gly	Gln	Gly	Lys	Glu	Glu	Ala	Val	Lys	Gln	Leu
210						215					220				
Arg	Lys	Met	Gln	Ala	Gln	Met	Lys	Glu	Leu	Trp	Arg	Glu	Val	Glu	Glu
225				230					235					240	
Thr	Arg	Thr	Ser	Arg	Glu	Glu	Ile	Phe	Ser	Gln	Asn	Arg	Glu	Ser	Glu
			245						250					255	
Lys	Arg	Leu	Lys	Gly	Leu	Glu	Ala	Glu	Val	Leu	Arg	Leu	Gln	Glu	Glu
	260							265					270		
Leu	Ala	Ala	Ser	Asp	Arg	Ala	Arg	Gln	Ala	Gln	Gln	Asp	Arg	Asp	
	275					280						285			
Glu	Met	Ala	Asp	Glu	Val	Ala	Asn	Gly	Asn	Leu	Ser	Lys	Ala	Ala	Ile
290						295					300				
Leu	Glu	Glu	Lys	Arg	Gln	Leu	Glu	Gly	Arg	Leu	Gly	Gln	Leu	Glu	Glu
305					310					315				320	
Glu	Leu	Glu	Glu	Glu	Gln	Thr	Xaa	Ser	Glu	Leu	Leu	Asn	Asp	Arg	Tyr
			325						330					335	
Arg	Lys	Leu	Leu	Leu	Gln	Val	Glu	Ser	Leu	Thr	Thr	Glu	Leu	Ser	Ala
		340						345					350		
Glu	Arg	Ser	Phe	Ser	Ala	Lys	Ala	Glu	Ser	Gly	Arg	Gln	Gln	Leu	Glu


```

          355          360          365
Arg Gln Ile Gln Glu Leu Arg Gly Arg Leu Gly Glu Glu Asp Ala Gly
   370          375          380
Ala Arg Ala Arg His Lys Met Thr Ile Ala Ala Leu Glu Ser Lys Leu
385          390          395          400
Ala Gln Ala Glu Glu Gln Leu Glu Gln Glu Thr Arg Glu Arg Ile Leu
          405          410          415
Ser Gly Lys Leu Val Pro Lys Ser Lys Lys Arg Phe Lys Glu Val Val
          420          425          430
Leu Gln Val Glu Glu Glu Arg Arg Val Ala Asp Gln Leu Arg Asp Gln
          435          440          445
Leu Glu Lys Gly Asn Leu Arg Val Lys Gln Leu Lys Arg Gln Leu Glu
          450          455          460
Glu Ala Glu Glu Glu Ala Ser Arg
465          470

```

<210> 1967
 <211> 401
 <212> DNA
 <213> Homo sapiens

```

<400> 1967
aaatttgaat cctggaaagc tgatctcgat aagtcgtttg tcgagctggt tgcggcggtg
60
ccgacgcgcc taatttggat cgtgcagtaa gagcttctcc attcctcggc gccaaaggga
120
tgcatacat ctcgcggcca gtcagctccc ctgggcttgc actcgtcgga gatgctggcc
180
ttgcaccaga tcctctgtgg ggcgtcgggt gtggctgggc attccagtcg gcagcttggt
240
tagtggactg taccggatct catttggtg accggaccgc cttagatagg gcgcttcgca
300
gttatcatcg ataccaccgg cattctcttg ggtggcatga acgcctcatc tctagatatg
360
caaacggccg gggttttcat gcgctcgaga agctgatgct g
401

```

<210> 1968
 <211> 94
 <212> PRT
 <213> Homo sapiens

```

<400> 1968
Met His His Ile Ser Arg Pro Val Ser Ser Pro Gly Leu Ala Leu Val
 1          5          10          15
Gly Asp Ala Gly Leu Ala Pro Asp Pro Leu Trp Gly Val Gly Cys Gly
          20          25          30
Trp Ala Phe Gln Ser Ala Ala Trp Leu Val Asp Cys Thr Gly Ser His
          35          40          45
Leu Ala Asp Arg Thr Ala Leu Asp Arg Ala Leu Arg Ser Tyr His Arg
          50          55          60
Tyr His Arg His Ser Leu Gly Trp His Glu Arg Leu Ile Ser Arg Tyr
65          70          75          80
Ala Asn Gly Arg Gly Phe His Ala Leu Glu Lys Leu Met Leu

```


85

90

<210> 1969
 <211> 464
 <212> DNA
 <213> Homo sapiens

<400> 1969
 mncatcgacg cgcactggac tcattctgggt gacggccac agatggacac tctgcgcgag
 60
 gaggtcgccg ttcaccgcgt caccgatgct gtcaccctgc tcggtcacgt cgccaacacc
 120
 caggtcatgg cgaccagcg tgatctcaaa ccgtcagtat tcgtcaacct ctctctctcg
 180
 gaaggacttc ctgtatcaat gatggagggt gttccctcg gtatcccat tctgcgcgact
 240
 ggcgtcgccg gagtaggaga aatcgtctcg tctgacaacg ggcattctatt gcctgccgag
 300
 ttcaccgaca cccaggcatc tgacgcgtta gtgcagctgg cacgtctgtc tgaggacgag
 360
 taccagcagg tgtgtcaggc ctcccgcag gtgtgggaag aaaagttccg cgcctctgtc
 420
 gtctaccccg aattctgtcg cgagtgtggt ggcgacgtg atca
 464

<210> 1970
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 1970
 Xaa Ile Asp Ala His Trp Thr His Leu Gly Asp Gly Pro Gln Met Asp
 1 5 10 15
 Thr Leu Arg Glu Glu Val Ala Val His Arg Val Thr Asp Ala Val Thr
 20 25 30
 Leu Leu Gly His Val Ala Asn Thr Gln Val Met Ala Thr Gln Arg Asp
 35 40 45
 Leu Lys Pro Ser Val Phe Val Asn Leu Ser Ser Ser Glu Gly Leu Pro
 50 55 60
 Val Ser Met Met Glu Val Ala Ser Leu Gly Ile Pro Ile Ile Ala Thr
 65 70 75 80
 Gly Val Gly Gly Val Gly Glu Ile Val Ser Ser Asp Asn Gly His Leu
 85 90 95
 Leu Pro Ala Glu Phe Thr Asp Thr Gln Ala Ser Asp Ala Leu Val Gln
 100 105 110
 Leu Ala Arg Leu Ser Glu Asp Glu Tyr Gln Gln Val Cys Gln Ala Ser
 115 120 125
 Arg Gln Val Trp Glu Glu Lys Phe Arg Ala Ser Val Val Tyr Pro Glu
 130 135 140
 Phe Cys Arg Glu Cys Trp Gly Asp Ala Asp
 145 150

<210> 1971
 <211> 520

<212> DNA

<213> Homo sapiens

<400> 1971

```

accggttgta ggtgtacaaa cactgctgac atcagccagc tcctgagtgt caggagagac
60
acagaagtac tcaggttggt tgtgtgttga ccgagagaac agctcagatt gaggaacgag
120
acagacgacg acaaaaacaa ttagagcatc agttgataca atacaaatgg aatataatgc
180
atctaacatt tcaaattcaa gacatgattc tgatgaaatc agtggtaaaa tgaatacata
240
tatgaattct acgacttcta agaaggatac tgggtgtgcaa acagatgact taaatatagg
300
aatattcacc aatgcagaat cacattgtgg atcattaatg gagagggaca tcacaaattg
360
ttcatctcct gagatttcgg cagaacttat tggacagttt agcaccaaga aaaacaagca
420
agaactaact caggataaag gagccagctt agaaaaagaa aacaatcggt gtaatgacca
480
gtgtaatcag ttcacaagaa ttgagaaaca aacaaaacag
520

```

<210> 1972

<211> 118

<212> PRT

<213> Homo sapiens

<400> 1972

```

Met Glu Tyr Asn Ala Ser Asn Ile Ser Asn Ser Arg His Asp Ser Asp
1           5           10           15
Glu Ile Ser Gly Lys Met Asn Thr Tyr Met Asn Ser Thr Thr Ser Lys
20           25           30
Lys Asp Thr Gly Val Gln Thr Asp Asp Leu Asn Ile Gly Ile Phe Thr
35           40           45
Asn Ala Glu Ser His Cys Gly Ser Leu Met Glu Arg Asp Ile Thr Asn
50           55           60
Cys Ser Ser Pro Glu Ile Ser Ala Glu Leu Ile Gly Gln Phe Ser Thr
65           70           75           80
Lys Lys Asn Lys Gln Glu Leu Thr Gln Asp Lys Gly Ala Ser Leu Glu
85           90           95
Lys Glu Asn Asn Arg Cys Asn Asp Gln Cys Asn Gln Phe Thr Arg Ile
100          105          110
Glu Lys Gln Thr Lys Gln
115

```

<210> 1973

<211> 331

<212> DNA

<213> Homo sapiens

<400> 1973

```

acgcgtacct atgccacgag catggcggat cagttgaccg cggcactagg cagctactta
60

```


tccgcaggtc aaaagaaatc ggacggcctc ggatccttct tcgtggccac tacccttgaa
 120
 gagctacaag cgatgaacag cgatactcgc ttcaccacga gcgtgggaat cgacctatcc
 180
 cccgctcgat ctttctccgc ttgggcgctg cgcggaacga ctttttctgc gccgtcgatg
 240
 acaaaggctt cccgctcgag ctccggccgca ccaagcgac cgcgtcgctg tggcaaaagc
 300
 tggcgtcgc cgccagtgaa atcgtgtgca c
 331

<210> 1974

<211> 103

<212> PRT

<213> Homo sapiens

<400> 1974

Met	Ala	Asp	Gln	Leu	Thr	Ala	Ala	Leu	Gly	Ser	Tyr	Leu	Ser	Ala	Gly
1			5						10				15		
Gln	Lys	Lys	Ser	Asp	Gly	Leu	Gly	Ser	Phe	Phe	Val	Ala	Thr	Thr	Leu
		20						25					30		
Glu	Glu	Leu	Gln	Ala	Met	Asn	Ser	Asp	Thr	Arg	Phe	Thr	Thr	Ser	Val
		35					40					45			
Gly	Ile	Asp	Leu	Ser	Pro	Ala	Arg	Ser	Phe	Ser	Ala	Trp	Ala	Leu	Arg
	50					55					60				
Gly	Thr	Thr	Phe	Ser	Ala	Pro	Ser	Met	Thr	Lys	Ala	Ser	Arg	Ser	Ser
65				70						75				80	
Ser	Ala	Ala	Pro	Ser	Ala	Pro	Arg	Arg	Cys	Gly	Lys	Ser	Trp	Arg	Ser
			85						90					95	
Pro	Pro	Val	Lys	Ser	Cys	Ala									
			100												

<210> 1975

<211> 370

<212> DNA

<213> Homo sapiens

<400> 1975

acgcgtcggg ccaatcgctc gtggagctgc aaaccgcgct gcaagcccgc gacgagcaac
 60
 gtctgacggc ttggaccgat gcgctgggtg caatgggcgc caagctgagc caggcgtggg
 120
 agaaggcggg tgccgacacg gcgagccgtc agcaggagat ttgcgatgcg ctggcgcaga
 180
 ctgcgcgca catctcttcg caaacacagg cccacgcaa caacacgac gccgagattt
 240
 ctcgactggt gcaggccgcc tcggaggcgc caaaggctgc tgccgaagtg gttgccgagc
 300
 tgcgccagaa gctgtccgac agcatggtcc gcgacacggg cgatgctgga agaacgcacg
 360
 cgcattgctgg
 370

<210> 1976

<211> 121
 <212> PRT
 <213> Homo sapiens

<400> 1976
 Met Arg Val Arg Ser Ser Ser Ile Ala Arg Val Ala Asp His Ala Val
 1 5 10 15
 Gly Gln Leu Leu Ala Gln Leu Gly Asn His Phe Gly Ser Ser Leu Trp
 20 25 30
 Arg Leu Arg Gly Gly Leu His Gln Ser Arg Asn Leu Gly Asp Arg Val
 35 40 45
 Val Gly Val Gly Leu Cys Leu Arg Arg Asp Val Ala Arg Ser Leu Arg
 50 55 60
 Gln Arg Ile Ala Asn Leu Leu Leu Thr Ala Arg Arg Val Gly Thr Arg
 65 70 75 80
 Leu Leu Pro Arg Leu Ala Gln Leu Gly Ala His Cys Thr Gln Arg Ile
 85 90 95
 Gly Pro Ser Arg Gln Thr Leu Leu Val Ala Gly Leu Gln Arg Gly Leu
 100 105 110
 Gln Leu His Glu Arg Leu Ala Arg Arg
 115 120

<210> 1977
 <211> 551
 <212> DNA
 <213> Homo sapiens

<400> 1977
 ccgcgggcag gtggcatgtg ggctgagccc cgaagaaagt caaaagataa ggaagaggac
 60
 aggtttctag gaagaagttg gctgagcagg agttgggcag gttaagagct gggtagggg
 120
 agagaggaga caggcagcca ggctgttaca cagggaggag cacaggaggt gcacgggagg
 180
 agccaagcgg gagggcaggc aatggccagg ttggaagatc tgcacctccc tggttactgg
 240
 aggaatgaaa ctggttggaac tgactgcagg gagaggctcc agttgaaaca tgagagaagt
 300
 actggatgaa aaagggtgcca caactgagac cagaaggcag attcctgaac tggtaggggtg
 360
 ccaaggatgc atatcaaaga ctgctggaac atgtgggtat caagattgaa gacagtgaag
 420
 gttaaaatgg cctgatccaa agctggaggg ggggtggagt gactggtgac tgctcttccc
 480
 acggacaggc attcaggcaa gctttcaaac tgagctctaa attctgctct gggttctaag
 540
 cagactcatg a
 551

<210> 1978
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 1978

Met His Pro Trp His Pro Thr Ser Ser Gly Ile Cys Leu Leu Val Ser
 1 5 10 15
 Val Val Ala Pro Phe Ser Ser Ser Thr Ser Leu Met Phe Gln Leu Glu
 20 25 30
 Pro Leu Pro Ala Val Ser Pro Thr Ser Phe Ile Pro Pro Val Thr Arg
 35 40 45
 Glu Val Gln Ile Phe Gln Pro Gly His Cys Leu Pro Ser Arg Leu Ala
 50 55 60
 Pro Pro Val His Leu Leu Cys Ser Ser Leu Cys Asn Ser Leu Ala Ala
 65 70 75 80
 Cys Leu Leu Ser Pro Leu Thr Gln Leu Leu Thr Cys Pro Thr Pro Ala
 85 90 95
 Gln Pro Thr Ser Ser
 100

<210> 1979

<211> 5530

<212> DNA

<213> Homo sapiens

<400> 1979

ncttgactca atcctgcaag caagtgtgtg tgtgtcccca tccccgcgcc cgttaacttc
 60
 atagcaaata acaaataccc ataaagtccc agtcgcgcag cccctccccc cgggcagcgc
 120
 actatgctgc tcgggtgggc gtccctgctg ctgtgcgcgt tccgctgcc cctggccgcg
 180
 gtcggccccc ccgcgacacc tgcccaggat aaagccgggc agcctccgac tgctgcagca
 240
 gccgcccagc cccgccggcg gcagggggag gaggtgcagg agcgagccga gcctcccggc
 300
 caccgcacc ccctggcgca gcggcgagc agcaaggggc tggcgcagaa catcgaccaa
 360
 ctctactccg gcggcgga ggtgggctac ctctgtctac cgggcggccg gaggttcctc
 420
 ttggacctgg agcgagatgg ttccgtgggc attgctggct tcgtgcccgc aggaggcggg
 480
 acgagtgcgc cctggcgcca ccggagccac tgcttctatc ggggcacagt ggacgctagt
 540
 cccgcgtctc tggctgtctt tgacctctgt gggggtctcg acggcttctt cgcggtcaag
 600
 cagcgcgct acaccctaaa gccactgctg cgcggaccct gggcgaggga agaaaagggg
 660
 cgcgtgtacg gggatgggtc cgcacggatc ctgcacgtct acaccgcag ggcttcagct
 720
 tcgaggccct gccgcgcgc gccagctgcg aaacccccgc gtccacaccg gagggccacg
 780
 agcatgctcc ggcgcacagc aaccgcagcg gacgcgcagc acgcctcgca gctcttgagc
 840
 cagtccgctc tctcgcgcgc tgggggctca ggaccgcaga cgtggtggcg gcggcggcgc
 900
 cgctccatct cccgggcccc ccaggtggag ctgcttctgg tggctgacgc gtccatggcg
 960

cggttgatg gccggggcct gcagcattac ctgctgaccc tggcctccat cgccaatagg
1020
ctgtacagcc atgctagcat cgagaaccac atccgcctgg ccgtggtgaa ggtggtggtg
1080
ctaggcgaca aggacaagag cctggaagtg agcaagaacg ctgccaccac actcaagaac
1140
ttttgcaagt ggcagcacca acacaaccag ctgggagatg accatgagga gcactacgat
1200
gcagctatcc tgtttactcg ggaggattta tgtgggcatc attcatgtga caccctggga
1260
atggcagacg ttgggaccat atgttctcca gagcgcagct gtgctgtgat tgaagacgat
1320
ggcctccacg cagccttcac tgtggctcac gaaatcggac atttacttgg cctctcccat
1380
gacgattcca aattctgtga agagacctt gggtccacag aagataagcg cttaatgtct
1440
tccatcctta ccagcattga tgcactaag ccctgggtcca aatgcacttc agccaccatc
1500
acagaattcc tggatgatgg ccatggtaac tgtttgctgg acctaccacg aaagcagatc
1560
ctgggccccg aagaactccc aggacagacc tacgatgcca cccagcagtg caacctgaca
1620
ttcgggcctg agtactccgt gtgtcccggc atggatgtct gtgctcgctt gtggtgtgct
1680
gtggtacgcc agggccagat ggtctgtctg accaagaagc tgcctgcggt ggaagggacg
1740
ccttgtggaa aggggagaat ctgcctgcag ggcaaagtgt tggacaaaac caagaaaaaa
1800
tattattcaa cgtcaagcca tggcaactgg ggatcttggg gatcctgggg ccagtgttct
1860
cgctcatgtg gaggaggagt gcagtttgcc tatcgctact gtaataacct tgctcccaga
1920
aacaacggac gctactgcac aggggaagagg gccatctacc actcctgcag tctcatgccc
1980
tgcccaccca atggtaaatac atttcgtcat gaacagtgtg aggccaaaaa tggctatcag
2040
tctgatgcaa aaggagtcaa aacttttgtg gaatgggttc ccaaatatgc aggtgtcctg
2100
ccagcggatg tgtgcaagct gacctgcaga gccaaaggca ctggctacta tgtggtattt
2160
tctccaaagg tgaccgatgg cactgaatgt aggccgtaca gtaattccgt ctgcgtccgg
2220
gggaagtgtg tgagaactgg ctgtgacggc atcattggct caaagctgca gtatgacaag
2280
tgcgagtat gtggaggaga caactccagc tgtacaaaga ttgttggaac ctttaataag
2340
aaaagtaagg gttacactga cgtgggtgagg attcctgaag gggcaaccca cataaaagtt
2400
cgacagttca aagccaaaga ccagactaga ttcactgcct atttagccct gaaaaagaaa
2460
aacggtgagt accttatcaa tggaaagtac atgatctcca cttcagagac tatcattgac
2520
atcaatggaa cagtcatgaa ctatagcggg tggagccaca gggatgactt cctgcatggc
2580

atgggctact ctgccacgaa ggaaattcta atagtgcaga ttcttgcaac agacccact
2640
aaaccattag atgtccgtta tagctttttt gtteccaaga agtccactcc aaaagtaaac
2700
tctgtcacta gtcatggcag caataaagtg ggatcacaca ctctgcagcc gcagtgggtc
2760
acggggccat ggctcgcttg ctctaggacc tgtgacacag gttggcacac cagaacgggtg
2820
cagtgccagg atggaaaccg gaagttagca aaaggatgtc ctctctccca aaggccttct
2880
gcgtttaagc aatgcttggt gaagaaatgt tagcctgtgg ttatgatctt atgcacaaag
2940
ataactggag gattcagcac cgatgcagtc gtggtgaaca ggaggtctac ctaacgcaca
3000
gaaagtcattg cttcagtgac attgtcaaca ggagtccaat tatgggcaga atctgctctc
3060
tgtgacaaa agaggatgtg cactgcttca cgtgacagtg gtgacctgc aatatagaaa
3120
aacttgggag ttattgaaca tcccctgggc ttacaagaaa cactgatgaa tgtaaaatca
3180
ggggacattt gaagatggca gaactgtctc ccccttgta cctacctctg atagaatgtc
3240
tttaatggta tcataatcat ttccaccat aatacacagt agcttcttct tactgtttgt
3300
aaatacatc tcccttggtg tgtcacttta tatcccctgg ttctattaaa atatccatat
3360
atatttctat aaaaaaagt tttgacaaa gtaggtctgc agctatttca acttccctcc
3420
gtttccagaa agagctgtgg atattttact ggaaattaag aacttgctgc tgttttaata
3480
agatgtagta tattttctga ctacaggaga taaaatttca gtcaaaaaac cattttgaca
3540
gcaagtatct tctgagaaat tttgaaaagt aaatagatct cagtgtatct agtcacttaa
3600
atacatcac gggttcattt acttaaacct ttgactgctt gtattttttt caggtagcta
3660
gccaaattaa tgcataattt cagatgtaga agtagggttt gcgtgtgtgt gtgtgatcat
3720
actcaagagt ctaaaaacta gtttccttgt gttggaaatt taaaaggaaa aaaatcgtat
3780
ttcactgtgt tttcaattta tattttcaca actactttct ctctccagag ctttcatctg
3840
atatctcaca atgtatgata tacgtacaaa acacacagca agttttctat catgtccaac
3900
acattcaaca ctggtatacc tccaccagc aagcctttaa aatgcatttg tgtttgctta
3960
ttgttttgt tcaaggggtc agtaagacct acaatgtttt gtatttcttg acttatttta
4020
ttagaaacat taaagatcac ttggtagtta gccacattga gaagtgggta tcattgttaa
4080
tgtgggtaat gccaaaaagt ggtaaatatt aataagactg tttccacacc ataggcaata
4140
atttcttaat ttaaaaaatc taagtatatt cctattgtac taaatatttt tcccaactgg
4200

aaagcacttg attgtaccg taagtgttg agtgatgaca tgtgatgatt ttcagaaagt
4260
tgttggtttt gtttccatag cctgtttaag taggttgtaa gtttgaatag ttagacatgg
4320
aaattatttt ataagcacac acctaaagat atcttttttag atgataaaat gtacaccccc
4380
ccatcaccaa cctcacaact tagaaaatct aagttgtttg atttcattgg gatttctttt
4440
gttggtgaaac actgcaaagc caatttttct ttataaaaaat tcatagtaat cctgccaaat
4500
gtgcctattg ttaaagattt gcatgtgaag atcttaggga accactgttt gagttctaca
4560
agctcatgag agtttatttt tattataaga tgtttttaaat gtaaaagaat tatgtaactg
4620
atcactatat tacatcattt cagtgggcca ggaaaataga tgtcttgctg ttttcagtat
4680
tttcttaaga aattgctttt aaaacaaata attgttttac aaaaccaata attatccttt
4740
gaattttcat agactgactt tgctttcgac gtagaaattt ttttttctta ataaattatc
4800
actttgagaa atgaggcctg tacaaggctg ataacctata tgtgatggag atcacccaat
4860
gccaaaggga gaaagcaaac ctagttaaat aggtgagaaa aaaaataata atcccagtgc
4920
catttgctg tgcaaagaga attaggagag aggttaatgt tacttttttc cattttggaa
4980
ataattttta tcaagtaact caaatgtgac aaaatttatt tttatttttt gtggttatat
5040
tcccaacaac attaaaaaat actcgaggca taaatgtagt tgtctcctac tctgcttctc
5100
ttactatact catacatttt taatatggtt tatcaatgat tcatgtttcc ctcaaatagt
5160
gatggtttac acctgtcatg gaaacaatcc tagagagctc agagcaatta aaccactatt
5220
ccatgctttt aagtagtttt ctccaccttt ttcttatgag tctcactaga ttgactgagg
5280
aatgtatgtc taaattcctg gagaagatga tatggattgg aaactgaaat tcagagaaat
5340
ggagtgttca atagatacca cgaattgtga acaaaggga aattctatac aactcaatct
5400
aagtcagtcc actttgactt cgtactgtct ttcacctttc cattgttgca tcttgaattt
5460
tttaaaatgt ctagaattca ggatgctagg ggctacttct ccaaaaaaaaa aaaaaaaaaa
5520
aaaaaaaaaa
5530

<210> 1980

<211> 929

<212> PRT

<213> Homo sapiens

<400> 1980

Met Leu Leu Gly Trp Ala Ser Leu Leu Leu Cys Ala Phe Arg Leu Pro

1	5	10	15
Leu Ala Ala Val Gly Pro Ala Ala Thr Pro Ala Gln Asp Lys Ala Gly			
20	25	30	
Gln Pro Pro Thr Ala Ala Ala Ala Ala Gln Pro Arg Arg Arg Gln Gly			
35	40	45	
Glu Glu Val Gln Glu Arg Ala Glu Pro Pro Gly His Pro His Pro Leu			
50	55	60	
Ala Gln Arg Arg Arg Ser Lys Gly Leu Val Gln Asn Ile Asp Gln Leu			
65	70	75	80
Tyr Ser Gly Gly Gly Lys Val Gly Tyr Leu Val Tyr Ala Gly Gly Arg			
85	90	95	
Arg Phe Leu Leu Asp Leu Glu Arg Asp Gly Ser Val Gly Ile Ala Gly			
100	105	110	
Phe Val Pro Ala Gly Gly Gly Thr Ser Ala Pro Trp Arg His Arg Ser			
115	120	125	
His Cys Phe Tyr Arg Gly Thr Val Asp Ala Ser Pro Arg Ser Leu Ala			
130	135	140	
Val Phe Asp Leu Cys Gly Gly Leu Asp Gly Phe Phe Ala Val Lys His			
145	150	155	160
Ala Arg Tyr Thr Leu Lys Pro Leu Leu Arg Gly Pro Trp Ala Glu Glu			
165	170	175	
Glu Lys Gly Arg Val Tyr Gly Asp Gly Ser Ala Arg Ile Leu His Val			
180	185	190	
Tyr Thr Arg Arg Ala Ser Ala Ser Arg Pro Cys Arg Arg Ala Pro Ala			
195	200	205	
Ala Lys Pro Pro Arg Pro His Arg Arg Pro Thr Ser Met Leu Arg Arg			
210	215	220	
Thr Ala Thr Arg Ala Asp Ala Gln His Ala Ser Gln Leu Leu Asp Gln			
225	230	235	240
Ser Ala Leu Ser Pro Ala Gly Gly Ser Gly Pro Gln Thr Trp Trp Arg			
245	250	255	
Arg Arg Arg Arg Ser Ile Ser Arg Ala Arg Gln Val Glu Leu Leu Leu			
260	265	270	
Val Ala Asp Ala Ser Met Ala Arg Leu Tyr Gly Arg Gly Leu Gln His			
275	280	285	
Tyr Leu Leu Thr Leu Ala Ser Ile Ala Asn Arg Leu Tyr Ser His Ala			
290	295	300	
Ser Ile Glu Asn His Ile Arg Leu Ala Val Val Lys Val Val Val Leu			
305	310	315	320
Gly Asp Lys Asp Lys Ser Leu Glu Val Ser Lys Asn Ala Ala Thr Thr			
325	330	335	
Leu Lys Asn Phe Cys Lys Trp Gln His Gln His Asn Gln Leu Gly Asp			
340	345	350	
Asp His Glu Glu His Tyr Asp Ala Ala Ile Leu Phe Thr Arg Glu Asp			
355	360	365	
Leu Cys Gly His His Ser Cys Asp Thr Leu Gly Met Ala Asp Val Gly			
370	375	380	
Thr Ile Cys Ser Pro Glu Arg Ser Cys Ala Val Ile Glu Asp Asp Gly			
385	390	395	400
Leu His Ala Ala Phe Thr Val Ala His Glu Ile Gly His Leu Leu Gly			
405	410	415	
Leu Ser His Asp Asp Ser Lys Phe Cys Glu Glu Thr Phe Gly Ser Thr			
420	425	430	
Glu Asp Lys Arg Leu Met Ser Ser Ile Leu Thr Ser Ile Asp Ala Ser			

435				440				445							
Lys	Pro	Trp	Ser	Lys	Cys	Thr	Ser	Ala	Thr	Ile	Thr	Glu	Phe	Leu	Asp
450				455				460							
Asp	Gly	His	Gly	Asn	Cys	Leu	Leu	Asp	Leu	Pro	Arg	Lys	Gln	Ile	Leu
465				470				475				480			
Gly	Pro	Glu	Glu	Leu	Pro	Gly	Gln	Thr	Tyr	Asp	Ala	Thr	Gln	Gln	Cys
485				490				495							
Asn	Leu	Thr	Phe	Gly	Pro	Glu	Tyr	Ser	Val	Cys	Pro	Gly	Met	Asp	Val
500				505				510							
Cys	Ala	Arg	Leu	Trp	Cys	Ala	Val	Val	Arg	Gln	Gly	Gln	Met	Val	Cys
515				520				525							
Leu	Thr	Lys	Lys	Leu	Pro	Ala	Val	Glu	Gly	Thr	Pro	Cys	Gly	Lys	Gly
530				535				540							
Arg	Ile	Cys	Leu	Gln	Gly	Lys	Cys	Val	Asp	Lys	Thr	Lys	Lys	Lys	Tyr
545				550				555				560			
Tyr	Ser	Thr	Ser	Ser	His	Gly	Asn	Trp	Gly	Ser	Trp	Gly	Ser	Trp	Gly
565				570				575							
Gln	Cys	Ser	Arg	Ser	Cys	Gly	Gly	Gly	Val	Gln	Phe	Ala	Tyr	Arg	His
580				585				590							
Cys	Asn	Asn	Pro	Ala	Pro	Arg	Asn	Asn	Gly	Arg	Tyr	Cys	Thr	Gly	Lys
595				600				605							
Arg	Ala	Ile	Tyr	His	Ser	Cys	Ser	Leu	Met	Pro	Cys	Pro	Pro	Asn	Gly
610				615				620							
Lys	Ser	Phe	Arg	His	Glu	Gln	Cys	Glu	Ala	Lys	Asn	Gly	Tyr	Gln	Ser
625				630				635				640			
Asp	Ala	Lys	Gly	Val	Lys	Thr	Phe	Val	Glu	Trp	Val	Pro	Lys	Tyr	Ala
645				650				655							
Gly	Val	Leu	Pro	Ala	Asp	Val	Cys	Lys	Leu	Thr	Cys	Arg	Ala	Lys	Gly
660				665				670							
Thr	Gly	Tyr	Tyr	Val	Val	Phe	Ser	Pro	Lys	Val	Thr	Asp	Gly	Thr	Glu
675				680				685							
Cys	Arg	Pro	Tyr	Ser	Asn	Ser	Val	Cys	Val	Arg	Gly	Lys	Cys	Val	Arg
690				695				700							
Thr	Gly	Cys	Asp	Gly	Ile	Ile	Gly	Ser	Lys	Leu	Gln	Tyr	Asp	Lys	Cys
705				710				715				720			
Gly	Val	Cys	Gly	Gly	Asp	Asn	Ser	Ser	Cys	Thr	Lys	Ile	Val	Gly	Thr
725				730				735							
Phe	Asn	Lys	Lys	Ser	Lys	Gly	Tyr	Thr	Asp	Val	Val	Arg	Ile	Pro	Glu
740				745				750							
Gly	Ala	Thr	His	Ile	Lys	Val	Arg	Gln	Phe	Lys	Ala	Lys	Asp	Gln	Thr
755				760				765							
Arg	Phe	Thr	Ala	Tyr	Leu	Ala	Leu	Lys	Lys	Lys	Asn	Gly	Glu	Tyr	Leu
770				775				780							
Ile	Asn	Gly	Lys	Tyr	Met	Ile	Ser	Thr	Ser	Glu	Thr	Ile	Ile	Asp	Ile
785				790				795				800			
Asn	Gly	Thr	Val	Met	Asn	Tyr	Ser	Gly	Trp	Ser	His	Arg	Asp	Asp	Phe
805				810				815							
Leu	His	Gly	Met	Gly	Tyr	Ser	Ala	Thr	Lys	Glu	Ile	Leu	Ile	Val	Gln
820				825				830							
Ile	Leu	Ala	Thr	Asp	Pro	Thr	Lys	Pro	Leu	Asp	Val	Arg	Tyr	Ser	Phe
835				840				845							
Phe	Val	Pro	Lys	Lys	Ser	Thr	Pro	Lys	Val	Asn	Ser	Val	Thr	Ser	His
850				855				860							
Gly	Ser	Asn	Lys	Val	Gly	Ser	His	Thr	Ser	Gln	Pro	Gln	Trp	Val	Thr

865 870 875 880
 Gly Pro Trp Leu Ala Cys Ser Arg Thr Cys Asp Thr Gly Trp His Thr
 885 890 895
 Arg Thr Val Gln Cys Gln Asp Gly Asn Arg Lys Leu Ala Lys Gly Cys
 900 905 910
 Pro Leu Ser Gln Arg Pro Ser Ala Phe Lys Gln Cys Leu Leu Lys Lys
 915 920 925
 Cys

<210> 1981
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 1981
 tcatgaatgg tgtacaggcc ttttctggtg ccttcggcga tgggcgatcc gggatccggt
 60
 ggcgccgcta ctttgaacga gtctatgtgc gcaagcaggc ttggcgtaa cccgcgtggg
 120
 gtcgataatc gcacgtcaat ggccgtgttt tcgccgccaa aagctgccgg aggcgggcgc
 180
 tgcccggggc cttgccgaat aatggcttgg ccggggcaac gggcctcatc gtcgggacgg
 240
 gggcgtggcc cggcgctgtc ggaatgggcg tcttgcttga atggttcaaa agtgcgcgcg
 300
 ggctcgccgg gctcggaggc ggacgcn
 327

<210> 1982
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 1982
 Met Val Tyr Arg Pro Phe Leu Val Pro Ser Ala Met Gly Asp Pro Gly
 1 5 10 15
 Ser Val Gly Ala Ala Thr Leu Asn Glu Ser Met Cys Ala Ser Arg Leu
 20 25 30
 Gly Val Asn Pro Arg Gly Val Asp Asn Arg Thr Ser Met Ala Val Phe
 35 40 45
 Ser Pro Pro Lys Ala Ala Gly Gly Gly Arg Cys Pro Gly Pro Cys Arg
 50 55 60
 Ile Met Ala Trp Pro Gly Gln Arg Ala Ser Ser Ser Gly Arg Gly Arg
 65 70 75 80
 Gly Pro Ala Leu Ser Glu Trp Ala Ser Cys Leu Asn Gly Ser Lys Val
 85 90 95
 Arg Ala Gly Ser Pro Gly Ser Glu Ala Asp Ala
 100 105

<210> 1983
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 1983

ttcaacaaca tggatgatga gctgcgcgaa caacagcata taaaagacct attccgccaa
60
cacgtggggg caaaaattgc tgatcaggcg ctctctgctc agcctgaaga acgaaacgtc
120
ccaaagcgag acgcttctgt cttctttatt gacattattg ggtctacaaa gctcagttta
180
gaatacgaca gttacaccgt tggtagacct ctcaatcgct tctacacaat tggtagtag
240
gaagttaatc gtgcagggtg agtcgttaat aaattcgccg gcgatgcagt actagccatt
300
tttaatgtcc cgcacgatca cccggatcca gcaggcgcat cactctattg cgctcgggta
360
gttatgaacc gtttcgatca tga
383

<210> 1984

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1984

Phe	Asn	Asn	Met	Val	His	Glu	Leu	Arg	Glu	Gln	Gln	His	Ile	Lys	Asp
1				5					10					15	
Leu	Phe	Arg	Gln	His	Val	Gly	Ser	Lys	Ile	Ala	Asp	Gln	Ala	Leu	Ser
			20					25					30		
Ala	Gln	Pro	Glu	Glu	Arg	Asn	Val	Pro	Lys	Arg	Asp	Ala	Ser	Val	Phe
		35					40					45			
Phe	Ile	Asp	Ile	Ile	Gly	Ser	Thr	Lys	Leu	Ser	Leu	Glu	Tyr	Asp	Ser
	50					55					60				
Tyr	Thr	Val	Val	Asp	Leu	Asn	Arg	Phe	Tyr	Thr	Ile	Val	Val	Glu	
65				70					75					80	
Glu	Val	Asn	Arg	Ala	Gly	Gly	Val	Val	Asn	Lys	Phe	Ala	Gly	Asp	Ala
			85						90				95		
Val	Leu	Ala	Ile	Phe	Asn	Val	Pro	His	Asp	His	Pro	Asp	Pro	Ala	Gly
		100						105					110		
Ala	Ser	Leu	Tyr	Cys	Ala	Arg	Val	Val	Met	Asn	Arg	Phe	Asp	His	
		115					120					125			

<210> 1985

<211> 381

<212> DNA

<213> Homo sapiens

<400> 1985

actagtgatg ggtacttggt gtggctttgc aatcccatcc ggcacttgat caaaacgctt
60
tagctgcagc ttgttagcac gtccgataag cgtttgctca tctgccgttt gggctgtttc
120
atccgattca aatactcgag tgtagcgcgaa tggcctggcg aagggtgggtg gtctaccccc
180
tggacccccac attgggttcgc aggccttata acccttgatg cgatccagge ccatttgaac
240

cagaaccgaa gaaatatttt gcatgcgaaa ctcaattgag ccttcagtag ggccaaccaa
 300
 tgggtccctgg cgcagtaatc gattttcatg ggctttggta aaagacagtg ccctcttttc
 360
 ccacgccagc attttgaggt a
 381

<210> 1986

<211> 124

<212> PRT

<213> Homo sapiens

<400> 1986

Met	Leu	Ala	Trp	Glu	Lys	Arg	Ala	Leu	Ser	Phe	Thr	Lys	Ala	His	Glu
1				5					10					15	
Asn	Arg	Leu	Leu	Arg	Gln	Gly	Pro	Leu	Val	Gly	Arg	Thr	Glu	Gly	Ser
		20						25					30		
Ile	Glu	Phe	Arg	Met	Gln	Asn	Ile	Ser	Ser	Val	Leu	Val	Gln	Met	Gly
	35					40						45			
Leu	Asp	Arg	Ile	Lys	Gly	Tyr	Lys	Ala	Cys	Glu	Pro	Met	Trp	Gly	Pro
	50				55					60					
Gly	Gly	Arg	Pro	Thr	Thr	Phe	Ala	Arg	Pro	Phe	Ala	Asp	Thr	Arg	Val
65				70					75					80	
Phe	Glu	Ser	Asp	Glu	Thr	Ala	Gln	Thr	Ala	Asp	Glu	Gln	Thr	Leu	Ile
			85					90						95	
Arg	Arg	Ala	Asn	Lys	Leu	Gln	Leu	Lys	Arg	Phe	Asp	Gln	Val	Pro	Asp
		100						105						110	
Gly	Ile	Ala	Lys	Pro	Gln	Gln	Val	Pro	Ile	Thr	Ser				
	115						120								

<210> 1987

<211> 419

<212> DNA

<213> Homo sapiens

<400> 1987

aagcttgctg ccgatgggtca ccttgacgag cgtctgggac gagatttcga cctcgagacg
 60
 cttgcagctg ccctcgaccc cactcgtgac gacctcatcg ggttcatggg cgtgcgcacc
 120
 atgatcaacc gttatctctt gcgcactccc gataagcagg ctttggaggt accgcagtag
 180
 ttctggatgc gcgtcgcgat ggggctgagc ctactgagg acgatccac ttctcggcc
 240
 ncctgccttt acgactccat gagcaacctg cgccacctgg ccgctggatc cacccttgct
 300
 aatgcgggga cccatncggc tcagctatct aactgcttcg tcatgcgcac tgaggacaat
 360
 ctggagcaca tcgcccagac gatccgcgac gtcattgtga tcaccaaggg caccgtcgn
 419

<210> 1988

<211> 139

<212> PRT

<213> Homo sapiens

<400> 1988

Lys Leu Val Ala Asp Gly His Leu Asp Glu Arg Leu Gly Arg Asp Phe
 1 5 10 15
 Asp Leu Glu Thr Leu Ala Ala Ala Leu Asp Pro Thr Arg Asp Asp Leu
 20 25 30
 Ile Gly Phe Met Gly Val Arg Thr Met Ile Asn Arg Tyr Leu Leu Arg
 35 40 45
 Thr Pro Asp Lys Gln Ala Leu Glu Val Pro Gln Tyr Phe Trp Met Arg
 50 55 60
 Val Ala Met Gly Leu Ser Leu Thr Glu Asp Asp Pro Thr Ser Ser Ala
 65 70 75 80
 Xaa Cys Leu Tyr Asp Ser Met Ser Asn Leu Arg His Leu Ala Ala Gly
 85 90 95
 Ser Thr Leu Val Asn Ala Gly Thr His Xaa Ala Gln Leu Ser Asn Cys
 100 105 110
 Phe Val Met Arg Thr Glu Asp Asn Leu Glu His Ile Ala Gln Thr Ile
 115 120 125
 Arg Asp Val Met Trp Ile Thr Lys Gly Thr Val
 130 135

<210> 1989

<211> 10795

<212> DNA

<213> Homo sapiens

<400> 1989

ccagagcccc ctcgccccaa aggtcactgg gactatttgt gcgaagagat gcagtggctc
 60
 tctgctgact ttgctcagga gcgccgttgg aaacgggggtg tggcccgga ggtggtgcgc
 120
 atggtgatcc ggcaccacga ggagcagcgg cagaaagagg aacgggcccc gagggaggag
 180
 caggccaagc tgcgtcgaat tgcttcacc atggccaagg atgtcaggca gttctggagc
 240
 aatgtggaga aggtggtgca attcaagcaa cagtcccggc ttgaggaaaa gcgcaaaaaa
 300
 gccctggacc tgcatttggc cttcattgtg gggcaaaactg aaaagtactc ggaccttctg
 360
 tctcagagcc tcaaccagcc attaacctcc agcaaagcag gctcttcccc ttgcctcggc
 420
 tcttctcag ctgcctccag tctccaccc cctgcttctc gcttggatga tgaagatggg
 480
 gactttcaac cccaagagga tgaggaagag gatgatgagg aaacgattga agttgaagaa
 540
 caacaggaag gcaatgatgc agaggcccag aggcgtgaga ttgagctgct tcgccgtgag
 600
 gggaattgc cactggaaga*gctgctccgt tcccttcccc ctgagctgtt ggaagggcct
 660
 tccagcccct ctcaaaccct ctcattctcat gatagtgaca cccgagatgg gcctgaagaa
 720
 ggtgctgaag aagagcccc tcaagtggtg gagataaagc cccaccctc tgctgtcaca
 780

cagcgcaaca aacagccttg gcatccagat gaagatgatg aagagtttac tgccaacgaa
840
gaggaagcgg aggatgaaga ggatactata gcagctgagg aacagttgga aggggagggtg
900
gatcatgcca tggagctgag cgagttggct cgagaagggtg agctttccat ggaggagcta
960
ttgcagcagt atgcaggagc ctatgcccc ggctctggga gcagtgaaga tgaggatgaa
1020
gatgaggttg atgctaata ctctgactgt gaaccagagg ggcccgtgga agcgggaagag
1080
cctcctcagg aggatagtag cagtcagtca gactctgtgg aggaccggag tgaggatgag
1140
gaagatgaac attcagagga ggaagaaaca agtgggaagt cagcatcaga ggaatctgag
1200
tctgaagagt ctgaggatgc ccaatcacag agccaagcag atgaagagga ggaagatgat
1260
gattttgggg tggagtactt gcttgccagg gatgaagagc agagtgaggc agatgcaggc
1320
agtgggctc ctactccagg gccactact ctaggtccaa agaaagaaat tactgacatt
1380
gctgcagcag ctgaaagtct ccagccaag gggtacacgc tggccacgac ccaggtaaag
1440
acgcccattc ccctgcttct gcggggccag ctccgggagt accagcacat tgggctagac
1500
tggctgggta ccatgtatga gaagaagctt aatggcattc ttgctgatga gatggggctt
1560
gggaagacca tccagaccat ctctctgctt gccacttgg cttgtgagaa aggtaactgg
1620
ggtccccatt taatcattgt tcccaccagc gtgatgttga actgggagat ggagttgaaa
1680
cgttgggtgcc ccagctttaa aatcctcact tactatggag ccagaaaga gaggaagctc
1740
aagcggcagg gctggaccaa gcccaatgcc ttcatgtgt gtatcacatc ttacaagctg
1800
gtgctgcagg accaccaggc cttccgtcgc aagaactggc gctatctcat tctggatgag
1860
gcgcagaaca tcaagaactt caagtcacag cgctggcagt cactcctcaa cttcaacagc
1920
cagagacgcc tgctcctgac aggaactccc ttgcagaaca gcctcatgga gctgtggtcc
1980
ttgatgcact ttttgatgcc ccatgtcttc cagtctcatc gcgagttcaa ggagtgggtc
2040
tctaattccc taactggcat gattgagggc agccaagagt ataatgaagg tctagtcaaa
2100
cgctccaca aggttttgag gcctttttta ctgcgccgag ttaagggtga tgttgagaag
2160
cagatgcccc aaaagtacga gcatgttatc cgctgcaggc tctccaagcg tcaacgctgt
2220
ctctatgatg acttcatggc acagaccaca actaaggaga cactagccac aggccatttc
2280
atgagcgtca tcaacatttt gatgcagctg agaaaagttt gcaatcatcc aaatctgttc
2340
gacctcgac cggttacctc ccctttctac accccaggca tctgcttcag caccgcctct
2400

ctggtgctaa gggccacgga tgtccatccc ctccagcgga tagacatggg tcgatttgac
2460
cttattggcc tgggaaggctg tgtctctcga tatgaggcag acacatttct gccccggcag
2520
cgctctctc gccgggtact gttagaagtg gctactgctc ctgaccccc acccggcccc
2580
aagccagtca agatgaaggt caacaggatg ctgcagccag tacctaagca agaaggccgg
2640
acagtgggtg tgggtgaacaa cccacggggc cccctgggccc ctgtcccagt tgcacctcct
2700
ccaggtcctg agctctcagc ccagcccacc cctgggccag tcccccaagt gctgccagca
2760
tactgatgg ttccagcctc acctgccggg cccccgctta ttctgcctc tgggctcct
2820
ggcctgtcc tcttgccctc actgcagccc aacagtgggt ctctcccca ggtgttgcca
2880
tccccctgg gggctctgag tgggacctca cggcctccca cgccaacctt gtccctaaag
2940
ccaacaccac ctgccccagt tcgcctgagc ccagcccccac ctccaggccc ctctagcctg
3000
ttgaagcccc tgacagtgcc accaggctac accttccctc ctgctgctgc caccaccact
3060
tctaccacca cggcaactgc taccaccaca gcagtgccag ctccgactcc tgcaccacag
3120
cgctcattc tatctccga tatgcaggct cgcctgccct caggcgaagt ggtcagcctc
3180
gggcagttag cctcactggc acaacgtcca gtggctaagt cagggggaag caaacctctc
3240
accttccaaa tccagggcaa caagctgact ttgactgggt cccagggtgc ccagcttgct
3300
gtggggcagc cccgcccgt gcaaatgcc ccaaccatgg tgaataatac aggcgtgggtg
3360
aagattgtag tgagacaagc cctcgggat ggactgactc ctgttctctc attggcccca
3420
gcaccccggc ctccgagctc tgggcttcca gctgtgttga atccacgcc cacgttaacc
3480
cctggccggc taccacacc tactctgggt actgctcgag ccccatgcc cacaccact
3540
ctggtgagc ctcttctcaa gctgggtcac agtccttcac ctgaagtcag tgcttcagcc
3600
cccggagctg ccccttgac catctcttct cctctccacg tgccatctc actccctggg
3660
ccagcctctt ctccaatgcc aattcccaac tctctcccc ttgctagtcc tgtgtcctct
3720
acagtctcag ttccattgtc atcttctc ccatctctg tccccaccac acttctgtcc
3780
ccagcctcgg ctccactcac catccccatc tcagccccct tgactgttct tgcttcgggc
3840
ccagctctgt tgaccagtgt gactccacca ttggcacctg ttgtccagc ggctcctgga
3900
ctctctctt tggcaccatc tgggtgcttc ccgtcagcat cagccttgac tctaggttg
3960
gccacagctc catccctgtc ttcatctcag acacctggtc accctctgtt gttggctccc
4020

acctcttcac atgttccagg gttgaactca accgtggccc cagcatgctc acctgtcctg
4080
gtgccagctt cggctctggc cagtcctttt cgcagcac caaatccagc tccagctcag
4140
gcttcccttc tggtccagc atcttctgca tctcaggctc tagccacccc tctggctcct
4200
atggcggtc cacagacagc aattctggct ccttctccag ctctctctct ggctcctctt
4260
ccggtcctgg caccatcgcc aggtgctgct cctgtcctgg ctcatcaca gactccggtt
4320
ccagttatgg ctccatcgtc tactccagga acctcttttag cctcagcttc accggtacca
4380
gtccaaccc ctgtgttggc tccatcatca actcaaaacta tgctaccagc cccggttcg
4440
tcacctctcc cgagcccgcc ttctacgcag aactggccc tagccccagc tttagcacc
4500
actcttgagg gctcatctcc atctcagaca ctctctttgg gaacggggaa ccccaggga
4560
ccctttccaa ctcagacatt gtcattaact ccagcatcat ccctggtacc aactccagcc
4620
cagacactgt ctttggcacc aggaccacca ctgggtccaa ctcagacgct gtctctggct
4680
ccagcaccct ctctggctcc agcttctcca gtgggccag cccagctca cacgtgact
4740
ttggctccag catcgctc tcgttctc ctggccccag cttcagtgc gacactgacc
4800
ttgagccctg cccagttcc taccctgggc cgggcgcag ctcagacctt ggctgtggc
4860
ccagcctcca cacagtcccc agcttccag gcattctccc ttgtggtttc ggcatctgg
4920
gccgtccct tgctgtcac catggtatcc cggctgcctg tttccaagga tgagcctgac
4980
aactgacat tgcgtctgg tccccccagc cctccctcca ctgctacctc gtttgggtggc
5040
ccccggctc gacgccagcc cccccacca cctcgttccc ctttttatct ggactccctg
5100
gaggaaaagc ggaagcggca gcgtctgaa cgcttgaac ggattttcca acttagtgag
5160
gctcatgggg ccctggcacc tgtgtatggg actgaagtcc tggatttctg taccctgccc
5220
caacctgttg ccagcccat cggccctcgt tctcctggcc ccagccacc caccttttgg
5280
acttataccg aggtgcca cgggctgta ctgtttccc agcagcgact agaccagctg
5340
tcagaaatca ttgagaggtt catctttgtc atgcctcctg tggaggcacc tcccccttc
5400
ctgcatgct gccaccacc tccttggctg gcccacgctc aggcagcctt ccaggagcaa
5460
ttggcctctg agctctggcc cgggctcgt cctttgcacc gtattgtgtg taacatgcgc
5520
accagttcc ctgacttaag actcatccag tatgattgag gaaagttgca gacgttgga
5580
gtgctgttg gccagctcaa ggcagaggcc caccagtgct tcattctcac ccagatgacc
5640

cgaatgctgg atgtattgga gcagtttctc acctaccatg gccatctcta cctgcgcctg
5700
gatggatcta ctagagtga acagagacag gccttgatgg aacggttcaa tgcagacaaa
5760
cgcatattct gcttcaccc tccaactcgg agtgggggtg tgggcgtgaa cctgacagga
5820
gcagacactg ttgtttttta tgacagegac tggaatccca ccatggatgc tcaggcccag
5880
gaccgctgtc accgaattgg ccagaccggg gatgtccaca tatataggct tatcagtga
5940
cggacagtgg aggagaacat cctaaaaaag gcaaatacaga agagaatgtt gggggacatg
6000
gccattgagg gaggcaactt caccacagcc tatttcaaac agcagaccat ccgagagctg
6060
tttgatatgc ccctggagga accttctagc tcatccgtgc cctctgcccc tgaagaggag
6120
gaagagactg tggccagcaa gcagactcat attctggagc aggcattgtg tcgggcagaa
6180
gatgaagagg atatccgtgc agccaccag gccaaaggctg aacagggtggc tgagcttgca
6240
gaatttaatg agaacgatgg gtttcctgct ggtgaggagg aggaagctgg ccggcctggg
6300
gctgaggatg aggagatgtc ccgggctgag caggaaattg ctgccctcgt agaacagctg
6360
acccccattg agcgctatgc catgaaattc ctggaggcct cactggagga ggtgagccga
6420
gaggagctca aacaggcaga agagcaagtg gaagctgccc gcaaagacct ggaccaagcc
6480
aaggaggagg tgttccgcct accccaagag gaggaggagg ggccgggggc tggggatgag
6540
agttcctgtg ggactggtgg aggcaccac cggcgcagta aaaaggccaa agcccctgag
6600
aggccgggga ctctgtctag tgagcgtctt cgtggagccc gggctgagac tcaaggggca
6660
aaccacactc ctgtcatatc cgcccatcaa actcgcagca ccaccacacc accccgctgc
6720
agtcctgcca gggagcgagt tcccaggcca gcacctaggc ctcgaccac tccagcttca
6780
gctccggctg caattcctgc ccttgctcct gtccagttt ctgccccagt acccatttca
6840
gccccaaatc caataacat tctccctgtc catatcttgc cttctcctcc ccctccttca
6900
cagattcctc cttgttcttc tctgcctgc accctcctc ctgctgtac ccctccacca
6960
gctcatcac cgctccagc ccaaacctgt cttgtaactc cttcctctcc tctcttgctt
7020
ggtccacctt ctgtgcccac ctctgcctca gtcactaatc tccccttggg cttgaggcct
7080
gaggcagagc tgtgtgcccc ggcatggca tctccagagt ccttgagct ggcttctgtg
7140
gccagttcag aaacctcctc actttctctt gtgcccccta aagatctgtt gccagttgct
7200
gtggagatcc tgctgtgtc agagaagaac ctttctctca ccccttctgc acccagcctg
7260

accttggagg ctggcagcat ccccaatggt caagagcagg aggcaccaga ttctgtgtgag
7320
gggaccaccc ttacagtgtc gcctgaaggt gaggagtgtc ccctgtgtgt gagtgtgagc
7380
aatggcctgg agctcccacc ctgagcagca tctgatgagc cacttcagga gccactggag
7440
gctgacagga cctcggaaga gctgacagag gccaaagacc caacctccag cccagagaag
7500
ccacaggaac tcgttacagc tgagggttga gctccatcca cctcatcttc agccacttcc
7560
tcgcctgagg gtccttcacc tgcccgacct cctcggcgtc gcaccagtgc tgatgtggaa
7620
attaggggtc aagggtactgg tcggccagga caaccaccag gcccacaaagt gcttcgaaag
7680
ctgccaggac ggctggtaac tgtggtagag gaaaaggaac tgggtgcggcg gcggcgggcag
7740
cagcgggggag ctgccagcac cctagtgcct ggggtctctg agactagtgc cagcccggga
7800
agcccgtctg tccgcagcat gtcaggcca gaatcctccc ctcccattgg tgggcctgt
7860
gaagctgtc cttcatcctc actgcccact ccaccccagc agcccttcat tgctcgccgt
7920
cacattgagc tgggggtgac tgggtggtggc agccccgaga atggagacgg agcactgtc
7980
gccatcacc cactgtgtgt gaaacgtcgg agggggaggc cccccaagaa gaacaggtct
8040
ccagcagatg ctgggagagg tgtggatgag gcaccctcat ccaccttgaa gggaaaaacc
8100
aatggggctg acccagtcct tgggcctgag accctaattg ttgcagatcc tgtcctggaa
8160
ccacagctta ttctggggc ccagcctctt ggaccccagc cagttcacag acccaatccc
8220
ctcctgtcac ctgtggagaa aagaaggcga ggacgacccc ctaaagcacg agatttgccc
8280
atccctggga ccatttcctc tgcaggggat ggcaactccg aaagtcggac acagccaccc
8340
ccacacccat caccctaac cccactccca ccactgctag tttgtccac tgctactgtt
8400
gccaacactg tcaccactgt caccatttca acgtcccccac ccaaacggaa gaggggcccga
8460
cctcccaaga atcctccatc acctcggccc agccagctcc cgtcttgga ccgtgacagc
8520
acttctgttc tcgagagctg tggattgggg aggcgacggc aaccccaggg ccaaggggag
8580
agtgagggtg gttcctctga tgaggatgga agccgcccc tcaccgcctt gggccgctt
8640
cggcttgaag cagaaggaat gcgaggacgg aagagtggag ggtccatggt ggtggctgta
8700
attcaggatg acctggactt agcagatagc gggccaggcg gggttgaatt gacaccacct
8760
gtggtctcac taaccccaaa actgcgctcg acccggctgc gtccagggtc tctagtcccc
8820
ccactagaga ctgagaagtt gcctcgcaaa cgagcagggg cccagttgg tgggagtcct
8880

gggctggcaa agcggggccg cctacagccc ccaagtcccc tggggcctga ggggttcagta
8940
gaggagtctg aggctgaagc ctcaggtagg gaggaggaag gggatgggac cccacgccga
9000
cgtcctggcc cccgccggct tggtgggacc accaaccaag gggaccagcg catcctgcgc
9060
agcagcgcgc ctcctccctt ggctggccct gctgttagtc acagaggccg caaggccaag
9120
acgtgagtgg gctgccccct cacctaggct ttccaccgtg gccactccct ccatgaccag
9180
gcctgactct gttaaccact acttgaagtc ttgaggggga aagcctccag ggagacatag
9240
gggccttctc cttcttctcc accaaagtag ggggtaggca actgggtgtc atggaaatgg
9300
ggatcatcac agtccccctc ccttcacccc cacgtggctg ggcagtgtta agggtaggcaa
9360
gatagtctct gtccccaccc ccttgacttt gattccccag ctgtctttca cacagccccc
9420
cacccttagg ggaaggggga ggggcttctc tacaatgagg ttttttctt ttttttttt
9480
ttttaagaag aaaaaataat aaacttagtt tctgtatgag catccgcgta aggaggcttc
9540
tgattttctg gtctggtgga ggggtgggtg ggaacttggg catcgttttt ctctccctc
9600
ttgttcttgc aaagatccta gcacctgatc tctagcccag gactatatgt tccaggcaga
9660
aatctacca agaagaggga agattggtga atttgatgtg gtaggggtgcc tttccccagt
9720
cagtttgaag tcacagatat ctttttctc tcatttcttt tccctcggtt cctagacgtt
9780
cctcggagct ctttgatgcc tcagaccttt cctttttatc cctcttgctc aggtgcttcc
9840
tttcacaact tttccagag ggcaggcgtc ctagctccag ttgctccatc ccttgggccc
9900
tcccctggct cttcatctag ccaaactggt ttgagtcagc cacaccctt cccagctccc
9960
tgggctcttc acgtggtggc tggccactca accccacccc tgggcttggc ttggagccct
10020
gagtcagctc catcaccacc caagccaaac caaagctgag gcaggagccg aaactcagag
10080
tccttcaagg cctatagcca ggtgatggag gacgaggaga aggcagtgga gatcttgggc
10140
aacacggaag ctgctcatcc tccatcccc atccgctgct gctggctccg cctccgctgc
10200
ttggcagcta ctagcattat ctgtggctgc tcttgcttgg gagtcatggc tctggtgttt
10260
gccatcaagg cggaagagcg gcataaagca ggccggtccg aggaggcagt gcgctggggg
10320
gcccgggccc ggaaactcat cctggccagc tttgctgtct ggcttgctgt cctcattctg
10380
ggtccctgc tgctgtggtt gctctctac gccatcgctc aggtgagtg accctggatg
10440
gcctctgctg agagccagcc gagacctctt ggatcctgca atgcggcatt gctaaggctc
10500

tgtgacagca gtggttgga ggatcctggt tggaaggatg gggactctct caaggggctt
 10560
 tggaagagct cttctagccc ttataaaaag gagggcagca gctgagactg atgagaggag
 10620
 ggcagcctgc tctgttcttt caggggccccc caccgccatc tccctaccc tagccaccc
 10680
 tagggcctct acccagcggg aggggttgaa gaccaggcct ggttttatta gaattcattt
 10740
 tgtaataaaa gcctttttta gtggtaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa
 10795

<210> 1990

<211> 2971

<212> PRT

<213> Homo sapiens

<400> 1990

Met	Ala	Lys	Asp	Val	Arg	Gln	Phe	Trp	Ser	Asn	Val	Glu	Lys	Val	Val
1				5				10						15	
Gln	Phe	Lys	Gln	Gln	Ser	Arg	Leu	Glu	Glu	Lys	Arg	Lys	Lys	Ala	Leu
			20					25					30		
Asp	Leu	His	Leu	Asp	Phe	Ile	Val	Gly	Gln	Thr	Glu	Lys	Tyr	Ser	Asp
		35				40						45			
Leu	Leu	Ser	Gln	Ser	Leu	Asn	Gln	Pro	Leu	Thr	Ser	Ser	Lys	Ala	Gly
		50				55					60				
Ser	Ser	Pro	Cys	Leu	Gly	Ser	Ser	Ser	Ala	Ala	Ser	Ser	Pro	Pro	Pro
65				70					75					80	
Pro	Ala	Ser	Arg	Leu	Asp	Asp	Glu	Asp	Gly	Asp	Phe	Gln	Pro	Gln	Glu
				85					90					95	
Asp	Glu	Glu	Glu	Asp	Asp	Glu	Glu	Thr	Ile	Glu	Val	Glu	Glu	Gln	Gln
		100						105					110		
Glu	Gly	Asn	Asp	Ala	Glu	Ala	Gln	Arg	Arg	Glu	Ile	Glu	Leu	Leu	Arg
		115					120					125			
Arg	Glu	Gly	Glu	Leu	Pro	Leu	Glu	Glu	Leu	Leu	Arg	Ser	Leu	Pro	Pro
		130				135					140				
Gln	Leu	Leu	Glu	Gly	Pro	Ser	Ser	Pro	Ser	Gln	Thr	Pro	Ser	Ser	His
145				150						155				160	
Asp	Ser	Asp	Thr	Arg	Asp	Gly	Pro	Glu	Glu	Gly	Ala	Glu	Glu	Glu	Pro
				165				170						175	
Pro	Gln	Val	Leu	Glu	Ile	Lys	Pro	Pro	Pro	Ser	Ala	Val	Thr	Gln	Arg
		180						185					190		
Asn	Lys	Gln	Pro	Trp	His	Pro	Asp	Glu	Asp	Asp	Glu	Glu	Phe	Thr	Ala
		195					200					205			
Asn	Glu	Glu	Glu	Ala	Glu	Asp	Glu	Glu	Asp	Thr	Ile	Ala	Ala	Glu	Glu
		210				215					220				
Gln	Leu	Glu	Gly	Glu	Val	Asp	His	Ala	Met	Glu	Leu	Ser	Glu	Leu	Ala
225				230						235				240	
Arg	Glu	Gly	Glu	Leu	Ser	Met	Glu	Glu	Leu	Leu	Gln	Gln	Tyr	Ala	Gly
				245					250					255	
Ala	Tyr	Ala	Pro	Gly	Ser	Gly	Ser	Ser	Glu	Asp	Glu	Asp	Glu	Asp	Glu
			260					265					270		
Val	Asp	Ala	Asn	Ser	Ser	Asp	Cys	Glu	Pro	Glu	Gly	Pro	Val	Glu	Ala
		275					280					285			
Glu	Glu	Pro	Pro	Gln	Glu	Asp	Ser	Ser	Ser	Gln	Ser	Asp	Ser	Val	Glu


```

      290              295              300
Asp Arg Ser Glu Asp Glu Glu Asp Glu His Ser Glu Glu Glu Glu Thr
305              310              315              320
Ser Gly Ser Ser Ala Ser Glu Glu Ser Glu Ser Glu Glu Ser Glu Asp
      325              330              335
Ala Gln Ser Gln Ser Gln Ala Asp Glu Glu Glu Glu Asp Asp Asp Phe
      340              345              350
Gly Val Glu Tyr Leu Leu Ala Arg Asp Glu Glu Gln Ser Glu Ala Asp
      355              360              365
Ala Gly Ser Gly Pro Pro Thr Pro Gly Pro Thr Thr Leu Gly Pro Lys
      370              375              380
Lys Glu Ile Thr Asp Ile Ala Ala Ala Ala Glu Ser Leu Gln Pro Lys
385              390              395              400
Gly Tyr Thr Leu Ala Thr Thr Gln Val Lys Thr Pro Ile Pro Leu Leu
      405              410              415
Leu Arg Gly Gln Leu Arg Glu Tyr Gln His Ile Gly Leu Asp Trp Leu
      420              425              430
Val Thr Met Tyr Glu Lys Lys Leu Asn Gly Ile Leu Ala Asp Glu Met
      435              440              445
Gly Leu Gly Lys Thr Ile Gln Thr Ile Ser Leu Leu Ala His Leu Ala
      450              455              460
Cys Glu Lys Gly Asn Trp Gly Pro His Leu Ile Ile Val Pro Thr Ser
465              470              475              480
Val Met Leu Asn Trp Glu Met Glu Leu Lys Arg Trp Cys Pro Ser Phe
      485              490              495
Lys Ile Leu Thr Tyr Tyr Gly Ala Gln Lys Glu Arg Lys Leu Lys Arg
      500              505              510
Gln Gly Trp Thr Lys Pro Asn Ala Phe His Val Cys Ile Thr Ser Tyr
      515              520              525
Lys Leu Val Leu Gln Asp His Gln Ala Phe Arg Arg Lys Asn Trp Arg
      530              535              540
Tyr Leu Ile Leu Asp Glu Ala Gln Asn Ile Lys Asn Phe Lys Ser Gln
545              550              555              560
Arg Trp Gln Ser Leu Leu Asn Phe Asn Ser Gln Arg Arg Leu Leu Leu
      565              570              575
Thr Gly Thr Pro Leu Gln Asn Ser Leu Met Glu Leu Trp Ser Leu Met
      580              585              590
His Phe Leu Met Pro His Val Phe Gln Ser His Arg Glu Phe Lys Glu
      595              600              605
Trp Phe Ser Asn Pro Leu Thr Gly Met Ile Glu Gly Ser Gln Glu Tyr
      610              615              620
Asn Glu Gly Leu Val Lys Arg Leu His Lys Val Leu Arg Pro Phe Leu
625              630              635              640
Leu Arg Arg Val Lys Val Asp Val Glu Lys Gln Met Pro Lys Lys Tyr
      645              650              655
Glu His Val Ile Arg Cys Arg Leu Ser Lys Arg Gln Arg Cys Leu Tyr
      660              665              670
Asp Asp Phe Met Ala Gln Thr Thr Thr Lys Glu Thr Leu Ala Thr Gly
      675              680              685
His Phe Met Ser Val Ile Asn Ile Leu Met Gln Leu Arg Lys Val Cys
      690              695              700
Asn His Pro Asn Leu Phe Asp Pro Arg Pro Val Thr Ser Pro Phe Ile
705              710              715              720
Thr Pro Gly Ile Cys Phe Ser Thr Ala Ser Leu Val Leu Arg Ala Thr

```


725 730 735
 Asp Val His Pro Leu Gln Arg Ile Asp Met Gly Arg Phe Asp Leu Ile
 740 745 750
 Gly Leu Glu Gly Arg Val Ser Arg Tyr Glu Ala Asp Thr Phe Leu Pro
 755 760 765
 Arg His Arg Leu Ser Arg Arg Val Leu Leu Glu Val Ala Thr Ala Pro
 770 775 780
 Asp Pro Pro Pro Arg Pro Lys Pro Val Lys Met Lys Val Asn Arg Met
 785 790 795 800
 Leu Gln Pro Val Pro Lys Gln Glu Gly Arg Thr Val Val Val Val Asn
 805 810 815
 Asn Pro Arg Ala Pro Leu Gly Pro Val Pro Val Arg Pro Pro Pro Gly
 820 825 830
 Pro Glu Leu Ser Ala Gln Pro Thr Pro Gly Pro Val Pro Gln Val Leu
 835 840 845
 Pro Ala Ser Leu Met Val Ser Ala Ser Pro Ala Gly Pro Pro Leu Ile
 850 855 860
 Pro Ala Ser Arg Pro Pro Gly Pro Val Leu Leu Pro Pro Leu Gln Pro
 865 870 875 880
 Asn Ser Gly Ser Leu Pro Gln Val Leu Pro Ser Pro Leu Gly Val Leu
 885 890 895
 Ser Gly Thr Ser Arg Pro Pro Thr Pro Thr Leu Ser Leu Lys Pro Thr
 900 905 910
 Pro Pro Ala Pro Val Arg Leu Ser Pro Ala Pro Pro Pro Gly Pro Ser
 915 920 925
 Ser Leu Leu Lys Pro Leu Thr Val Pro Pro Gly Tyr Thr Phe Pro Pro
 930 935 940
 Ala Ala Ala Thr Thr Thr Ser Thr Thr Thr Ala Thr Ala Thr Thr Thr
 945 950 955 960
 Ala Val Pro Ala Pro Thr Pro Ala Pro Gln Arg Leu Ile Leu Ser Pro
 965 970 975
 Asp Met Gln Ala Arg Leu Pro Ser Gly Glu Val Val Ser Ile Gly Gln
 980 985 990
 Leu Ala Ser Leu Ala Gln Arg Pro Val Ala Asn Ala Gly Gly Ser Lys
 995 1000 1005
 Pro Leu Thr Phe Gln Ile Gln Gly Asn Lys Leu Thr Leu Thr Gly Ala
 1010 1015 1020
 Gln Val Arg Gln Leu Ala Val Gly Gln Pro Arg Pro Leu Gln Met Pro
 1025 1030 1035 1040
 Pro Thr Met Val Asn Asn Thr Gly Val Val Lys Ile Val Val Arg Gln
 1045 1050 1055
 Ala Pro Arg Asp Gly Leu Thr Pro Val Pro Pro Leu Ala Pro Ala Pro
 1060 1065 1070
 Arg Pro Pro Ser Ser Gly Leu Pro Ala Val Leu Asn Pro Arg Pro Thr
 1075 1080 1085
 Leu Thr Pro Gly Arg Leu Pro Thr Pro Thr Leu Gly Thr Ala Arg Ala
 1090 1095 1100
 Pro Met Pro Thr Pro Thr Leu Val Arg Pro Leu Leu Lys Leu Val His
 1105 1110 1115 1120
 Ser Pro Ser Pro Glu Val Ser Ala Ser Ala Pro Gly Ala Ala Pro Leu
 1125 1130 1135
 Thr Ile Ser Ser Pro Leu His Val Pro Ser Ser Leu Pro Gly Pro Ala
 1140 1145 1150
 Ser Ser Pro Met Pro Ile Pro Asn Ser Ser Pro Leu Ala Ser Pro Val

1155 1160 1165
 Ser Ser Thr Val Ser Val Pro Leu Ser Ser Ser Leu Pro Ile Ser Val
 1170 1175 1180
 Pro Thr Thr Leu Pro Ala Pro Ala Ser Ala Pro Leu Thr Ile Pro Ile
 1185 1190 1195 1200
 Ser Ala Pro Leu Thr Val Ser Ala Ser Gly Pro Ala Leu Leu Thr Ser
 1205 1210 1215
 Val Thr Pro Pro Leu Ala Pro Val Val Pro Ala Ala Pro Gly Pro Pro
 1220 1225 1230
 Ser Leu Ala Pro Ser Gly Ala Ser Pro Ser Ala Ser Ala Leu Thr Leu
 1235 1240 1245
 Gly Leu Ala Thr Ala Pro Ser Leu Ser Ser Ser Gln Thr Pro Gly His
 1250 1255 1260
 Pro Leu Leu Leu Ala Pro Thr Ser Ser His Val Pro Gly Leu Asn Ser
 1265 1270 1275 1280
 Thr Val Ala Pro Ala Cys Ser Pro Val Leu Val Pro Ala Ser Ala Leu
 1285 1290 1295
 Ala Ser Pro Phe Pro Ser Ala Pro Asn Pro Ala Pro Ala Gln Ala Ser
 1300 1305 1310
 Leu Leu Ala Pro Ala Ser Ser Ala Ser Gln Ala Leu Ala Thr Pro Leu
 1315 1320 1325
 Ala Pro Met Ala Ala Pro Gln Thr Ala Ile Leu Ala Pro Ser Pro Ala
 1330 1335 1340
 Pro Pro Leu Ala Pro Leu Pro Val Leu Ala Pro Ser Pro Gly Ala Ala
 1345 1350 1355 1360
 Pro Val Leu Ala Ser Ser Gln Thr Pro Val Pro Val Met Ala Pro Ser
 1365 1370 1375
 Ser Thr Pro Gly Thr Ser Leu Ala Ser Ala Ser Pro Val Pro Ala Pro
 1380 1385 1390
 Thr Pro Val Leu Ala Pro Ser Ser Thr Gln Thr Met Leu Pro Ala Pro
 1395 1400 1405
 Val Pro Ser Pro Leu Pro Ser Pro Ala Ser Thr Gln Thr Leu Ala Leu
 1410 1415 1420
 Ala Pro Ala Leu Ala Pro Thr Leu Gly Gly Ser Ser Pro Ser Gln Thr
 1425 1430 1435 1440
 Leu Ser Leu Gly Thr Gly Asn Pro Gln Gly Pro Phe Pro Thr Gln Thr
 1445 1450 1455
 Leu Ser Leu Thr Pro Ala Ser Ser Leu Val Pro Thr Pro Ala Gln Thr
 1460 1465 1470
 Leu Ser Leu Ala Pro Gly Pro Pro Leu Gly Pro Thr Gln Thr Leu Ser
 1475 1480 1485
 Leu Ala Pro Ala Pro Pro Leu Ala Pro Ala Ser Pro Val Gly Pro Ala
 1490 1495 1500
 Pro Ala His Thr Leu Thr Leu Ala Pro Ala Ser Ser Ala Ser Leu
 1505 1510 1515 1520
 Leu Ala Pro Ala Ser Val Gln Thr Leu Thr Leu Ser Pro Ala Pro Val
 1525 1530 1535
 Pro Thr Leu Gly Pro Ala Ala Ala Gln Thr Leu Ala Leu Ala Pro Ala
 1540 1545 1550
 Ser Thr Gln Ser Pro Ala Ser Gln Ala Ser Ser Leu Val Val Ser Ala
 1555 1560 1565
 Ser Gly Ala Ala Pro Leu Pro Val Thr Met Val Ser Arg Leu Pro Val
 1570 1575 1580
 Ser Lys Asp Glu Pro Asp Thr Leu Thr Leu Arg Ser Gly Pro Pro Ser

1585 1590 1595 1600
 Pro Pro Ser Thr Ala Thr Ser Phe Gly Gly Pro Arg Pro Arg Arg Gln
 1605 1610 1615
 Pro Pro Pro Pro Pro Arg Ser Pro Phe Tyr Leu Asp Ser Leu Glu Glu
 1620 1625 1630
 Lys Arg Lys Arg Gln Arg Ser Glu Arg Leu Glu Arg Ile Phe Gln Leu
 1635 1640 1645
 Ser Glu Ala His Gly Ala Leu Ala Pro Val Tyr Gly Thr Glu Val Leu
 1650 1655 1660
 Asp Phe Cys Thr Leu Pro Gln Pro Val Ala Ser Pro Ile Gly Pro Arg
 1665 1670 1675 1680
 Ser Pro Gly Pro Ser His Pro Thr Phe Trp Thr Tyr Thr Glu Ala Ala
 1685 1690 1695
 His Arg Ala Val Leu Phe Pro Gln Gln Arg Leu Asp Gln Leu Ser Glu
 1700 1705 1710
 Ile Ile Glu Arg Phe Ile Phe Val Met Pro Pro Val Glu Ala Pro Pro
 1715 1720 1725
 Pro Ser Leu His Ala Cys His Pro Pro Pro Trp Leu Ala Pro Arg Gln
 1730 1735 1740
 Ala Ala Phe Gln Glu Gln Leu Ala Ser Glu Leu Trp Pro Arg Ala Arg
 1745 1750 1755 1760
 Pro Leu His Arg Ile Val Cys Asn Met Arg Thr Gln Phe Pro Asp Leu
 1765 1770 1775
 Arg Leu Ile Gln Tyr Asp Cys Gly Lys Leu Gln Thr Leu Ala Val Leu
 1780 1785 1790
 Leu Arg Gln Leu Lys Ala Glu Gly His Arg Val Leu Ile Phe Thr Gln
 1795 1800 1805
 Met Thr Arg Met Leu Asp Val Leu Glu Gln Phe Leu Thr Tyr His Gly
 1810 1815 1820
 His Leu Tyr Leu Arg Leu Asp Gly Ser Thr Arg Val Glu Gln Arg Gln
 1825 1830 1835 1840
 Ala Leu Met Glu Arg Phe Asn Ala Asp Lys Arg Ile Phe Cys Phe Ile
 1845 1850 1855
 Leu Ser Thr Arg Ser Gly Gly Val Gly Val Asn Leu Thr Gly Ala Asp
 1860 1865 1870
 Thr Val Val Phe Tyr Asp Ser Asp Trp Asn Pro Thr Met Asp Ala Gln
 1875 1880 1885
 Ala Gln Asp Arg Cys His Arg Ile Gly Gln Thr Arg Asp Val His Ile
 1890 1895 1900
 Tyr Arg Leu Ile Ser Glu Arg Thr Val Glu Glu Asn Ile Leu Lys Lys
 1905 1910 1915 1920
 Ala Asn Gln Lys Arg Met Leu Gly Asp Met Ala Ile Glu Gly Gly Asn
 1925 1930 1935
 Phe Thr Thr Ala Tyr Phe Lys Gln Gln Thr Ile Arg Glu Leu Phe Asp
 1940 1945 1950
 Met Pro Leu Glu Glu Pro Ser Ser Ser Ser Val Pro Ser Ala Pro Glu
 1955 1960 1965
 Glu Glu Glu Glu Thr Val Ala Ser Lys Gln Thr His Ile Leu Glu Gln
 1970 1975 1980
 Ala Leu Cys Arg Ala Glu Asp Glu Glu Asp Ile Arg Ala Ala Thr Gln
 1985 1990 1995 2000
 Ala Lys Ala Glu Gln Val Ala Glu Leu Ala Glu Phe Asn Glu Asn Asp
 2005 2010 2015
 Gly Phe Pro Ala Gly Glu Gly Glu Glu Ala Gly Arg Pro Gly Ala Glu

2020 2025 2030
 Asp Glu Glu Met Ser Arg Ala Glu Gln Glu Ile Ala Ala Leu Val Glu
 2035 2040 2045
 Gln Leu Thr Pro Ile Glu Arg Tyr Ala Met Lys Phe Leu Glu Ala Ser
 2050 2055 2060
 Leu Glu Glu Val Ser Arg Glu Glu Leu Lys Gln Ala Glu Glu Gln Val
 2065 2070 2075 2080
 Glu Ala Ala Arg Lys Asp Leu Asp Gln Ala Lys Glu Glu Val Phe Arg
 2085 2090 2095
 Leu Pro Gln Glu Glu Glu Glu Gly Pro Gly Ala Gly Asp Glu Ser Ser
 2100 2105 2110
 Cys Gly Thr Gly Gly Gly Thr His Arg Arg Ser Lys Lys Ala Lys Ala
 2115 2120 2125
 Pro Glu Arg Pro Gly Thr Arg Val Ser Glu Arg Leu Arg Gly Ala Arg
 2130 2135 2140
 Ala Glu Thr Gln Gly Ala Asn His Thr Pro Val Ile Ser Ala His Gln
 2145 2150 2155 2160
 Thr Arg Ser Thr Thr Thr Pro Pro Arg Cys Ser Pro Ala Arg Glu Arg
 2165 2170 2175
 Val Pro Arg Pro Ala Pro Arg Pro Arg Pro Thr Pro Ala Ser Ala Pro
 2180 2185 2190
 Ala Ala Ile Pro Ala Leu Val Pro Val Pro Val Ser Ala Pro Val Pro
 2195 2200 2205
 Ile Ser Ala Pro Asn Pro Ile Thr Ile Leu Pro Val His Ile Leu Pro
 2210 2215 2220
 Ser Pro Pro Pro Pro Ser Gln Ile Pro Pro Cys Ser Ser Pro Ala Cys
 2225 2230 2235 2240
 Thr Pro Pro Pro Ala Cys Thr Pro Pro Pro Ala His Thr Pro Pro Pro
 2245 2250 2255
 Ala Gln Thr Cys Leu Val Thr Pro Ser Ser Pro Leu Leu Leu Gly Pro
 2260 2265 2270
 Pro Ser Val Pro Ile Ser Ala Ser Val Thr Asn Leu Pro Leu Gly Leu
 2275 2280 2285
 Arg Pro Glu Ala Glu Leu Cys Ala Gln Ala Leu Ala Ser Pro Glu Ser
 2290 2295 2300
 Leu Glu Leu Ala Ser Val Ala Ser Ser Glu Thr Ser Ser Leu Ser Leu
 2305 2310 2315 2320
 Val Pro Pro Lys Asp Leu Leu Pro Val Ala Val Glu Ile Leu Pro Val
 2325 2330 2335
 Ser Glu Lys Asn Leu Ser Leu Thr Pro Ser Ala Pro Ser Leu Thr Leu
 2340 2345 2350
 Glu Ala Gly Ser Ile Pro Asn Gly Gln Glu Gln Glu Ala Pro Asp Ser
 2355 2360 2365
 Ala Glu Gly Thr Thr Leu Thr Val Leu Pro Glu Gly Glu Glu Leu Pro
 2370 2375 2380
 Leu Cys Val Ser Glu Ser Asn Gly Leu Glu Leu Pro Pro Ser Ala Ala
 2385 2390 2395 2400
 Ser Asp Glu Pro Leu Gln Glu Pro Leu Glu Ala Asp Arg Thr Ser Glu
 2405 2410 2415
 Glu Leu Thr Glu Ala Lys Thr Pro Thr Ser Ser Pro Glu Lys Pro Gln
 2420 2425 2430
 Glu Leu Val Thr Ala Glu Val Ala Ala Pro Ser Thr Ser Ser Ser Ala
 2435 2440 2445
 Thr Ser Ser Pro Glu Gly Pro Ser Pro Ala Arg Pro Pro Arg Arg Arg

2450 2455 2460
 Thr Ser Ala Asp Val Glu Ile Arg Gly Gln Gly Thr Gly Arg Pro Gly
 2465 2470 2475 2480
 Gln Pro Pro Gly Pro Lys Val Leu Arg Lys Leu Pro Gly Arg Leu Val
 2485 2490 2495
 Thr Val Val Glu Glu Lys Glu Leu Val Arg Arg Arg Arg Gln Gln Arg
 2500 2505 2510
 Gly Ala Ala Ser Thr Leu Val Pro Gly Val Ser Glu Thr Ser Ala Ser
 2515 2520 2525
 Pro Gly Ser Pro Ser Val Arg Ser Met Ser Gly Pro Glu Ser Ser Pro
 2530 2535 2540
 Pro Ile Gly Gly Pro Cys Glu Ala Ala Pro Ser Ser Ser Leu Pro Thr
 2545 2550 2555 2560
 Pro Pro Gln Gln Pro Phe Ile Ala Arg Arg His Ile Glu Leu Gly Val
 2565 2570 2575
 Thr Gly Gly Gly Ser Pro Glu Asn Gly Asp Gly Ala Leu Leu Ala Ile
 2580 2585 2590
 Thr Pro Pro Ala Val Lys Arg Arg Gly Arg Pro Pro Lys Lys Asn
 2595 2600 2605
 Arg Ser Pro Ala Asp Ala Gly Arg Gly Val Asp Glu Ala Pro Ser Ser
 2610 2615 2620
 Thr Leu Lys Gly Lys Thr Asn Gly Ala Asp Pro Val Pro Gly Pro Glu
 2625 2630 2635 2640
 Thr Leu Ile Val Ala Asp Pro Val Leu Glu Pro Gln Leu Ile Pro Gly
 2645 2650 2655
 Pro Gln Pro Leu Gly Pro Gln Pro Val His Arg Pro Asn Pro Leu Leu
 2660 2665 2670
 Ser Pro Val Glu Lys Arg Arg Arg Gly Arg Pro Pro Lys Ala Arg Asp
 2675 2680 2685
 Leu Pro Ile Pro Gly Thr Ile Ser Ser Ala Gly Asp Gly Asn Ser Glu
 2690 2695 2700
 Ser Arg Thr Gln Pro Pro Pro His Pro Ser Pro Leu Thr Pro Leu Pro
 2705 2710 2715 2720
 Pro Leu Leu Val Cys Pro Thr Ala Thr Val Ala Asn Thr Val Thr Thr
 2725 2730 2735
 Val Thr Ile Ser Thr Ser Pro Pro Lys Arg Lys Arg Gly Arg Pro Pro
 2740 2745 2750
 Lys Asn Pro Pro Ser Pro Arg Pro Ser Gln Leu Pro Val Leu Asp Arg
 2755 2760 2765
 Asp Ser Thr Ser Val Leu Glu Ser Cys Gly Leu Gly Arg Arg Arg Gln
 2770 2775 2780
 Pro Gln Gly Gln Gly Glu Ser Glu Gly Ser Ser Ser Asp Glu Asp Gly
 2785 2790 2795 2800
 Ser Arg Pro Leu Thr Arg Leu Ala Arg Leu Arg Leu Glu Ala Glu Gly
 2805 2810 2815
 Met Arg Gly Arg Lys Ser Gly Gly Ser Met Val Val Ala Val Ile Gln
 2820 2825 2830
 Asp Asp Leu Asp Leu Ala Asp Ser Gly Pro Gly Gly Leu Glu Leu Thr
 2835 2840 2845
 Pro Pro Val Val Ser Leu Thr Pro Lys Leu Arg Ser Thr Arg Leu Arg
 2850 2855 2860
 Pro Gly Ser Leu Val Pro Pro Leu Glu Thr Glu Lys Leu Pro Arg Lys
 2865 2870 2875 2880
 Arg Ala Gly Ala Pro Val Gly Gly Ser Pro Gly Leu Ala Lys Arg Gly

	2885		2890		2895
Arg	Leu	Gln	Pro	Pro	Ser
	2900		2905		2910
Ser	Glu	Ala	Glu	Ala	Ser
	2915		2920		2925
Arg	Arg	Arg	Pro	Gly	Pro
	2930		2935		2940
Asp	Gln	Arg	Ile	Leu	Arg
	2945		2950		2955
Ala	Val	Ser	His	Arg	Gly
	2965		2970		

<210> 1991
 <211> 3102
 <212> DNA
 <213> Homo sapiens

<400> 1991
 nntcctttgc aggttttttt ccccttccc cctcccccg acctcctttg cgtacaagaa
 60
 gtgaagagtt tgggggaaaa gggacacatg ctctgcttct gcagagaaat gcttctcagg
 120
 gggttggact gttctgtaaa cccccactcc ccgccagcgc aggtgttttg aactccagct
 180
 gagggcctgc tggctgctgg gaaactccta ggcagcagag gccacgact acttcctcct
 240
 gagtgccgtt cagtggcctg tgtccaggct ctgaagggtt ccaagaagct ggtgctgtct
 300
 gtgtactcag cagggcgcat ccctgggggc tacgtcacca accacatcta cacctgggtg
 360
 gacccgcagg gccgcagcat ctccccaccc tcgggcctgc ccagcccca cgggtggtgcc
 420
 ctgaggcagc aggaggggtga ccggaggagc accctgcacc tcctgcaagg aggggatgag
 480
 aaaaagggtga acctggtgct gggggacggc cggtccttgg gcctcacgat ccgtggggga
 540
 gctgagtacg gccttggcat ttacatcact ggcgtggacc caggctctga agcagaaggc
 600
 agcgggtcga aggttgggga ccagattcta gaagtgaatg ggcggagctt tctcaacatc
 660
 ctacacgacg aggtgtcag gctgcttaag tcattctcggc acctcatcct gacagtgaag
 720
 gacgtcggga ggctgcccc tgcccgacc actgtggacg agaccaagtg gatcgccagt
 780
 tcccggatca gggagaccat ggcgaactcg gcagggtttc ttggcgatct cacaacagaa
 840
 ggaataaaca agccaggatt ttacaagggc ccagccggct cccagggtgac cctgagcagc
 900
 ctggggaacc agacacgagt gctgctggag gagcaggctc ggcacctgct gaacgagcag
 960
 gaacacacca ccatggccta ctacctgat gactaccgtg gcggcagcgt ctctgtggag
 1020
 gccctcgtca tggccctggt caagctgctc aacaccacg ccaagttctc actcctctct
 1080

gaggtgagag gcaccatttc cccgcaagac ctagaacgct tcgaccacct ggtgctgagg
1140
cgtgagattg agtccatgaa ggcgcggcag cccccaggcc ccggggctgg ggacacctac
1200
tccatgggtct cctacagtga cacgggttca tccacaggca gccacggcac ctccaccacc
1260
gtcagctcgg ccaggaacac tctggacctg gaggaaactg gcgaggctgt ccagggaat
1320
atcaacgccc tcccagatgt gtccgtggat gatgtcagat ccacctcca ggggctgtca
1380
agcttcaagc cactgcctcg cccaccacct ctggcccaag gcaacgacct ccactaggc
1440
cagccaagga agctggggag agaggacctc cagccacctt cctccatgcc ttcctgctcg
1500
ggcactgtct tctcggctcc acagaaccgc agcccgccag cgggcaccgc accaccccca
1560
gggacctcct ctgcacagga cttgccctct tccccatct atgcctcctg ctccccctg
1620
aacccagct ccaagaggcc gctggacgcc catctggccc tggtaacca acacccatc
1680
ggcccttcc cacgggtcca gtcaccccg cacctgaaaa gccctctgc agaggccaca
1740
gtggctgggg gctgccttct gccccatca ccctctggcc acccagacca gacaggcaca
1800
aaccagcact ttgtcatggt ggaggtccac cgccccgaca gcgagccaga cgtcaatgaa
1860
gtgagggcgc tgcccagac gcgcacagcc tctacgtct cccagctctc ggacagcggg
1920
cagactctaa gcgaggacag tgggtgtggat gctggcgagg cagaggccag cgccccaggc
1980
cgaggaaggc agtcggtgtc caccaagagc aggagtagca aggagctgcc tcggaacgag
2040
aggcccacag atggggccaa caaacgcct ggacttctgg agcccacgtc cactctggtc
2100
cgtgtgaaga aaagtgcggc caccctgggc atcgccatcg aggggtggcg caacaccgc
2160
cagccctgc ctaggattgt cactattcag agaggcggct cagctcacia ctgtgggcag
2220
ctcaagggtg gccacgtgat tctggaagt aatgggctga cgcttcgggg caaggagcac
2280
cgggaggccg ccgcattat cgcgaggcc ttcaagacta aggaccgtga ctacattgac
2340
tttctggtca ctgagttcaa tgtgatgtc tagaggccaa ggctgaggg cctcccacca
2400
ctgcccagcc cctggtccca gtcccttcc accgttggct tcatcaagct ccttgccggg
2460
ttggggctgc atggccaggg tggcaggaag acatcccccc tccatcccag ccactggac
2520
cagaactggg agaggaagag agcaggacaa ggcagacaga aggtcaggtc aggaactggt
2580
gctgtactgg gtacacagta ggcgcccagg acaagtgggt tgcaagacag gaagaaagga
2640
aaaggaaggg cagagtgtcgt gtttctccag gttgggttgg gggcactgct gtccccctc
2700

cagctaggac ccagcccatc cccagatgcc tgagcctttg tccaaagtga ggtcactcga
 2760
 gaattcatgg acacggcccc cagtcagggg gcattcttgca agaccttttag tgccacaaat
 2820
 aagcatcgag cacctcccca ttcacacccc cattcctcct ggctccttat ccccatggg
 2880
 gtttattatt tatttccttc cccatgcccc tggggacccc aaggccccag cttcctctg
 2940
 cacccccagc ctatcccaga ggccttgagc gtgaccagca gtgtcattgt atttatatac
 3000
 agagcttatg actttaattt ttcaataaag aaatctgaac aaggttaaaa aaaaaaaaaa
 3060
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 3102

<210> 1992

<211> 733

<212> PRT

<213> Homo sapiens

<400> 1992

Thr	Pro	Ala	Glu	Gly	Leu	Leu	Ala	Ala	Gly	Lys	Leu	Leu	Gly	Ser	Arg
1				5					10					15	
Gly	Pro	Arg	Leu	Leu	Pro	Pro	Glu	Cys	Arg	Ser	Val	Ala	Cys	Val	Gln
			20					25					30		
Ala	Leu	Lys	Gly	Ser	Lys	Lys	Leu	Val	Leu	Ser	Val	Tyr	Ser	Ala	Gly
		35					40					45			
Arg	Ile	Pro	Gly	Gly	Tyr	Val	Thr	Asn	His	Ile	Tyr	Thr	Trp	Val	Asp
	50					55					60				
Pro	Gln	Gly	Arg	Ser	Ile	Ser	Pro	Pro	Ser	Gly	Leu	Pro	Gln	Pro	His
65					70					75				80	
Gly	Gly	Ala	Leu	Arg	Gln	Gln	Glu	Gly	Asp	Arg	Arg	Ser	Thr	Leu	His
			85						90					95	
Leu	Leu	Gln	Gly	Gly	Asp	Glu	Lys	Lys	Val	Asn	Leu	Val	Leu	Gly	Asp
		100						105					110		
Gly	Arg	Ser	Leu	Gly	Leu	Thr	Ile	Arg	Gly	Gly	Ala	Glu	Tyr	Gly	Leu
	115						120					125			
Gly	Ile	Tyr	Ile	Thr	Gly	Val	Asp	Pro	Gly	Ser	Glu	Ala	Glu	Gly	Ser
	130					135					140				
Gly	Leu	Lys	Val	Gly	Asp	Gln	Ile	Leu	Glu	Val	Asn	Gly	Arg	Ser	Phe
145					150					155					160
Leu	Asn	Ile	Leu	His	Asp	Glu	Ala	Val	Arg	Leu	Leu	Lys	Ser	Ser	Arg
			165					170						175	
His	Leu	Ile	Leu	Thr	Val	Lys	Asp	Val	Gly	Arg	Leu	Pro	His	Ala	Arg
	180							185					190		
Thr	Thr	Val	Asp	Glu	Thr	Lys	Trp	Ile	Ala	Ser	Ser	Arg	Ile	Arg	Glu
	195					200						205			
Thr	Met	Ala	Asn	Ser	Ala	Gly	Phe	Leu	Gly	Asp	Leu	Thr	Thr	Glu	Gly
	210					215					220				
Ile	Asn	Lys	Pro	Gly	Phe	Tyr	Lys	Gly	Pro	Ala	Gly	Ser	Gln	Val	Thr
225					230					235				240	
Leu	Ser	Ser	Leu	Gly	Asn	Gln	Thr	Arg	Val	Leu	Leu	Glu	Glu	Gln	Ala
			245						250					255	
Arg	His	Leu	Leu	Asn	Glu	Gln	Glu	His	Thr	Thr	Met	Ala	Tyr	Tyr	Leu

260 265 270
 Asp Glu Tyr Arg Gly Gly Ser Val Ser Val Glu Ala Leu Val Met Ala
 275 280 285
 Leu Phe Lys Leu Leu Asn Thr His Ala Lys Phe Ser Leu Leu Ser Glu
 290 295 300
 Val Arg Gly Thr Ile Ser Pro Gln Asp Leu Glu Arg Phe Asp His Leu
 305 310 315 320
 Val Leu Arg Arg Glu Ile Glu Ser Met Lys Ala Arg Gln Pro Pro Gly
 325 330 335
 Pro Gly Ala Gly Asp Thr Tyr Ser Met Val Ser Tyr Ser Asp Thr Gly
 340 345 350
 Ser Ser Thr Gly Ser His Gly Thr Ser Thr Thr Val Ser Ser Ala Arg
 355 360 365
 Asn Thr Leu Asp Leu Glu Glu Thr Gly Glu Ala Val Gln Gly Asn Ile
 370 375 380
 Asn Ala Leu Pro Asp Val Ser Val Asp Asp Val Arg Ser Thr Ser Gln
 385 390 395 400
 Gly Leu Ser Ser Phe Lys Pro Leu Pro Arg Pro Pro Pro Leu Ala Gln
 405 410 415
 Gly Asn Asp Leu Pro Leu Gly Gln Pro Arg Lys Leu Gly Arg Glu Asp
 420 425 430
 Leu Gln Pro Pro Ser Ser Met Pro Ser Cys Ser Gly Thr Val Phe Ser
 435 440 445
 Ala Pro Gln Asn Arg Ser Pro Pro Ala Gly Thr Ala Pro Thr Pro Gly
 450 455 460
 Thr Ser Ser Ala Gln Asp Leu Pro Ser Ser Pro Ile Tyr Ala Ser Val
 465 470 475 480
 Ser Pro Ala Asn Pro Ser Ser Lys Arg Pro Leu Asp Ala His Leu Ala
 485 490 495
 Leu Val Asn Gln His Pro Ile Gly Pro Phe Pro Arg Val Gln Ser Pro
 500 505 510
 Pro His Leu Lys Ser Pro Ser Ala Glu Ala Thr Val Ala Gly Gly Cys
 515 520 525
 Leu Leu Pro Pro Ser Pro Ser Gly His Pro Asp Gln Thr Gly Thr Asn
 530 535 540
 Gln His Phe Val Met Val Glu Val His Arg Pro Asp Ser Glu Pro Asp
 545 550 555 560
 Val Asn Glu Val Arg Ala Leu Pro Gln Thr Arg Thr Ala Ser Thr Leu
 565 570 575
 Ser Gln Leu Ser Asp Ser Gly Gln Thr Leu Ser Glu Asp Ser Gly Val
 580 585 590
 Asp Ala Gly Glu Ala Glu Ala Ser Ala Pro Gly Arg Gly Arg Gln Ser
 595 600 605
 Val Ser Thr Lys Ser Arg Ser Ser Lys Glu Leu Pro Arg Asn Glu Arg
 610 615 620
 Pro Thr Asp Gly Ala Asn Lys Pro Pro Gly Leu Leu Glu Pro Thr Ser
 625 630 635 640
 Thr Leu Val Arg Val Lys Lys Ser Ala Ala Thr Leu Gly Ile Ala Ile
 645 650 655
 Glu Gly Gly Ala Asn Thr Arg Gln Pro Leu Pro Arg Ile Val Thr Ile
 660 665 670
 Gln Arg Gly Gly Ser Ala His Asn Cys Gly Gln Leu Lys Val Gly His
 675 680 685
 Val Ile Leu Glu Val Asn Gly Leu Thr Leu Arg Gly Lys Glu His Arg

690		695		700
Glu Ala Ala Arg Ile Ile Ala Glu Ala Phe Lys Thr Lys Asp Arg Asp				
705		710		715
Tyr Ile Asp Phe Leu Val Thr Glu Phe Asn Val Met Leu				720
	725		730	

<210> 1993
 <211> 957
 <212> DNA
 <213> Homo sapiens

<400> 1993
 nngaaaacct acgggatgac acgtgccctc gatcacatcg acatcgccat cccagctggc
 60
 cagtcgggtcg ccgtcatggg gccgtccggg tcaggcaaga ccaccctgct gcactgcttg
 120
 tcggggatcc tctcgctga ctccggcagt atcgaactgg ctctgccgga ccgcaccgtc
 180
 aacgtcgaaa acctctctaa cgaaggccga gcaaagctac gccgtcaatc ccttggtttc
 240
 gtcttccaac aaggaatgct cgtaccgag ctactgctg tcgagaacac cgccctaccc
 300
 ctcatgctta acggcgtatc ccaaaccgat gcggtcaggt atgccacca atggcttgaa
 360
 tcgatggggt taggcggcat ggaggatcgt cggattgggtc agctctccgg gggccaagct
 420
 caacgcgtca ctattgcccg gtcccaggt atcgatccgt cgattgtctt cgctgacgaa
 480
 cccaccggag ccctcgactc agccaccgcc gtogaagtca tggccattct gctttcggcg
 540
 acgaccgggc ggggacgcac cctcgtcgtc gtcacccatg acgaggacgt tgcccgcgcg
 600
 tgccagcgca tccttcatct gcacgacggt cggatcgtct ctgaccacgt acgtcattcc
 660
 gatgggaggt ggtgatcatg actataacgc cccctatcga accgggaacc gccgatcaaa
 720
 ggatcccgtc cctcccgtc cccgagcccc tgggagctac gcccgacgt cttaccactg
 780
 ctgcgatcct cagcatgacc ctccgtgcct cagccgctga ccactccacc tggcggttgc
 840
 cggtagtgc tttcgtgtc attgcaacca tcctcctcga cgtcactggc ggtgccgtca
 900
 tgatgtggca tctaccggga gacaactctg gcttctacaa gctgacctcg acaattg
 957

<210> 1994
 <211> 224
 <212> PRT
 <213> Homo sapiens

<400> 1994
 Xaa Lys Thr Tyr Gly Met Thr Arg Ala Leu Asp His Ile Asp Ile Ala
 1 5 10 15
 Ile Pro Ala Gly Gln Ser Val Ala Val Met Gly Pro Ser Gly Ser Gly


```
<210> 1995
<211> 285
<212> DNA
<213> Homo sapiens
```

```
<210> 1996
<211> 59
<212> PRT
<213> Homo sapiens
```

1520

ggaagaatgg atcttactct cgctgaccct gagattgtcg ttaacaatgg cgatgatcat
 180
 gtgattatgt ctgtgaagtc caagactatg gtcgggcagt tggttgacta tggccgtata
 240
 actttcgttg atatgaccgg ctctattacg caggggtcaaa acgatgcagc tcaggttgtg
 300
 gggaccaatg tcaagctgaa tagccaagcc gtcgatgcat tcgctggctt ctatcaagct
 360
 ggaaagccca tggatgacat cgattcgtcc ttaaagctt
 399

<210> 2000

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2000

Met	Asp	Leu	Thr	Leu	Ala	Asp	Pro	Glu	Ile	Val	Val	Asn	Asn	Gly	Asp
1				5					10					15	
Asp	His	Val	Ile	Met	Ser	Val	Lys	Ser	Lys	Thr	Met	Val	Gly	Gln	Leu
		20						25					30		
Val	Asp	Tyr	Gly	Arg	Ile	Thr	Phe	Val	Asp	Met	Thr	Gly	Ser	Ile	Thr
	35					40						45			
Gln	Gly	Gln	Asn	Asp	Ala	Ala	Gln	Val	Val	Gly	Thr	Asn	Val	Lys	Leu
	50				55					60					
Asn	Ser	Gln	Ala	Val	Asp	Ala	Phe	Ala	Gly	Phe	Tyr	Gln	Ala	Gly	Lys
65				70					75					80	
Pro	Met	Asp	Asp	Ile	Asp	Ser	Ser	Leu	Lys	Leu					
				85					90						

<210> 2001

<211> 1434

<212> DNA

<213> Homo sapiens

<400> 2001

nngaataag gacgtcataa tttgctgac agcagtgcag ctgactggag gagggacaaa
 60
 tttggcagga cccactgca ctatgcagct gctaacggtg gctaccagtg tgcagtaaca
 120
 ttggtgactg ctggggcagg tgtcaacgag gccgactgta aaggctgctc tccccccac
 180
 tacgctgccg cttctgacac ttacaggnag agcggaaacc catacacctt ccagccatga
 240
 tgccgaagag ganncgagcc actgaaggag tcccgcagga aggaggcctt cttctgtctg
 300
 gagttcttac tggataacgg tgcagacccc tccctgctgg acaggcaggg ctacacagct
 360
 gtgcactatg cagccgccta tggcaacaga cagaacctcg aactgctctt agaaatgtcc
 420
 ttaactgcc tggaggatgt ggagagcacc attccagtca gccctttgca cttagctgcc
 480
 tacaacggtc actgtgaagc cttgaagacg ctggcggaga cgctggtgaa tctggacgta
 540

agggaccaca agggccggac cgcactcttc ctggccacgg agcgcgggctc tactgagtgt
 600
 gtggaggtgc ttacagccca cggcgctctt gccctcatca aggagcgcaa gcgcaagtgg
 660
 acacccctgc acgccgctgc tgcctctggc cacactgact ccctgcactt gctgatcgac
 720
 agtgggggaac gagctgacat cacagatgtc atggatgcct atggacagac cccactgatg
 780
 ctggccatca tgaatggcca tgtggactgt gtacatctgc tgctagagaa aggatccaca
 840
 gctgatgctg ctgacctccg gggccgcact gccctccacc gcggggcagt gactggctgt
 900
 gaggactgcc tggctgccct gctggaccac gacgcatttg tgctgtgccg agactttaag
 960
 ggccgcacgc ccattcacct ggccctcagc tgtggccaca ctgcagtact gcggaccctg
 1020
 ctgcaggctg ccctttccac agatcccctg gatgccgggg tggattacag cggatactcg
 1080
 cccatgcact gggcctccta cactggacat gaagattgtc tggagttggt acttgaacac
 1140
 agcccgtttt cgtacctgga aggaaacccc ttcactcctt tgcaactgtgc agtgattaat
 1200
 aaccaagaca gcaccacaga gatgctactg ggagctctgg gtgccaagat tgtgaacagc
 1260
 cgagatgcc aaggacggac ccccttcac gccgctgctc tcgcggaaca tgtctctggg
 1320
 ctccggatgc tgctgcagca tcaagctgag gtgaacgcc ctgaccacac tggccgcact
 1380
 gcgctcatga cggcggtga gaacgggcag accgctgctg tggaatttct gctg
 1434

<210> 2002

<211> 79

<212> PRT

<213> Homo sapiens

<400> 2002

Xaa	Asn	Glu	Gly	Arg	His	Asn	Leu	Leu	Ile	Ser	Ser	Ala	Ala	Asp	Trp
1				5					10					15	
Arg	Arg	Asp	Lys	Phe	Gly	Arg	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ala	Asn
			20					25					30		
Gly	Ser	Tyr	Gln	Cys	Ala	Val	Thr	Leu	Val	Thr	Ala	Gly	Ala	Gly	Val
			35				40					45			
Asn	Glu	Ala	Asp	Cys	Lys	Gly	Cys	Ser	Pro	Leu	His	Tyr	Ala	Ala	Ala
	50					55				60					
Ser	Asp	Thr	Tyr	Arg	Xaa	Ser	Gly	Thr	Pro	Tyr	Thr	Phe	Gln	Pro	
65					70					75					

<210> 2003

<211> 688

<212> DNA

<213> Homo sapiens

<400> 2003

ntcattgacta cggagacact gaagaaaatt cagattgata ggcagttttt cagcgtgtg
 60
 attgcagata ccattaagga gttgcaagat tcggccactt acaacagtct cctgcaagct
 120
 ttgagcaaag agagggaaaa caaaatgcat ttctatgaca tcatttccag ggaggaaaaa
 180
 ggaagaaaac agataatatc acttcaaaaa cagctaatta atttcaaaaa ggaatggcaa
 240
 tttgaagtcc agagtcagaa tgagtatatt gctaacctca aggaccaact gcaagagatg
 300
 aaggcaaaat ccaacttgga gaatcgctac atgaaaacca ataccgagct gcagattgcc
 360
 cagacccaga aaaagtgtaa cagaacagag gaactcttgg tggaagagat tgagaaactc
 420
 aggatgaaaa ccgaagaaga ggcccggact catacagaga ttgaaatgtt ccttagaaaag
 480
 gagcagcagg tgggtcccca cagcttttct atgctttgac ttttttttgg tactctgctt
 540
 atactgagga aacaaaaaga atattttgaa ggaaaaccaa ccatcattct ttcagcctaa
 600
 tgaactttag ctcatgtttt ctttcagggt tatgcatctg aatagatatc ttatatagct
 660
 gtaatttgag agagtgcagg taaaattg
 688

<210> 2004

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2004

Xaa	Met	Thr	Thr	Glu	Thr	Leu	Lys	Lys	Ile	Gln	Ile	Asp	Arg	Gln	Phe
1				5					10					15	
Phe	Ser	Asp	Val	Ile	Ala	Asp	Thr	Ile	Lys	Glu	Leu	Gln	Asp	Ser	Ala
			20					25				30			
Thr	Tyr	Asn	Ser	Leu	Leu	Gln	Ala	Leu	Ser	Lys	Glu	Arg	Glu	Asn	Lys
		35				40					45				
Met	His	Phe	Tyr	Asp	Ile	Ile	Ser	Arg	Glu	Glu	Lys	Gly	Arg	Lys	Gln
50					55				60						
Ile	Ile	Ser	Leu	Gln	Lys	Gln	Leu	Ile	Asn	Phe	Lys	Lys	Glu	Trp	Gln
65				70				75					80		
Phe	Glu	Val	Gln	Ser	Gln	Asn	Glu	Tyr	Ile	Ala	Asn	Leu	Lys	Asp	Gln
			85					90					95		
Leu	Gln	Glu	Met	Lys	Ala	Lys	Ser	Asn	Leu	Glu	Asn	Arg	Tyr	Met	Lys
			100					105					110		
Thr	Asn	Thr	Glu	Leu	Gln	Ile	Ala	Gln	Thr	Gln	Lys	Lys	Cys	Asn	Arg
		115				120						125			
Thr	Glu	Glu	Leu	Leu	Val	Glu	Glu	Ile	Glu	Lys	Leu	Arg	Met	Lys	Thr
	130					135					140				
Glu	Glu	Glu	Ala	Arg	Thr	His	Thr	Glu	Ile	Glu	Met	Phe	Leu	Arg	Lys
145				150				155						160	
Glu	Gln	Gln	Val	Gly	Pro	His	Ser	Phe	Ser	Met	Leu				
			165							170					

<210> 2005
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 2005
 gctagcacca agccaagggt atgtttcctt gcttgcattgt ggggtttctg gccagtcagc
 60
 caagtgaact gattgacccc cagccctgtg ggggaatttca ggggggtatt gtcttgggtca
 120
 tcggagtcag ggggtggcctt tnagccaagg ctgcattaac ttttgggaaa agaaatggga
 180
 agcccgccgt gtcacagggt ctctgaccg gctgggtagg gtttggcctt atcttacagc
 240
 cagtgtgtg tttgtcaga tggacgcaca tggaaaccag gctaggatca tcttcccaat
 300
 gtctactccc tgctttggtc tgtcctgaaa acaattgcaa agacattgtg gctg
 354

<210> 2006
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 2006
 Met Phe Pro Cys Leu His Val Gly Phe Leu Ala Ser Gln Pro Ser Glu
 1 5 10 15
 Leu Ile Asp Pro Gln Pro Cys Gly Glu Phe Gln Gly Gly Ile Val Leu
 20 25 30
 Val Ile Gly Val Arg Gly Gly Leu Xaa Ala Lys Ala Ala Leu Thr Phe
 35 40 45
 Gly Lys Arg Asn Gly Lys Pro Ala Val Ser Gln Gly Leu Leu Thr Gly
 50 55 60
 Trp Val Gly Phe Gly Leu Ile Leu Gln Pro Val Leu Cys Leu Leu Arg
 65 70 75 80
 Trp Thr His Met Glu Thr Arg Leu Gly Ser Ser Ser Gln Cys Leu Leu
 85 90 95
 Pro Ala Leu Val Cys Pro Glu Asn Asn Cys Lys Asp Ile Val Ala
 100 105 110

<210> 2007
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 2007
 nnacgcgtgc catgtgcatg tgtatatgca tgtatgtgcg tatgtgtgtg catgtgtgtg
 60
 tgtatatgca tgtgtgtatg tgcattgtacg tgttngtgca tatgcgtgtg catgcatgcg
 120
 tgtgcgtatg tgtgcatann catgtgcaca catgtacaca cgtgtacatg ttcattgcatg
 180
 tgcacgtgca tatgtgtaca cgtgtatgcg tgtacatgta tgagcatatg tacacgtgtg
 240

gatgtgtgtg tatgcatgtg tgtgtgcaca gatatgcctt ttcctttcat acaggtggt
 300
 ttgagtattg ctggtaggca gggacaactt tccgt
 335

<210> 2008
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 2008
 Xaa Arg Val Pro Cys Ala Cys Val Tyr Ala Cys Met Cys Val Cys Val
 1 5 10 15
 Cys Met Cys Val Cys Ile Cys Met Cys Val Cys Ala Cys Thr Cys Xaa
 20 25 30
 Cys Ile Cys Val Cys Met His Ala Cys Ala Tyr Val Cys Ile Xaa Met
 35 40 45
 Cys Thr His Val His Thr Cys Thr Cys Ser Cys Met Cys Thr Cys Ile
 50 55 60
 Cys Val His Val Tyr Ala Cys Thr Cys Met Ser Ile Cys Thr Arg Val
 65 70 75 80
 Asp Val Cys Val Cys Met Cys Val Cys Thr Asp Met Pro Phe Pro Phe
 85 90 95
 Ile Gln Ala Gly Leu Ser Ile Ala Gly Arg Gln Gly Gln Leu Ser
 100 105 110

<210> 2009
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 2009
 gacatcaccc cgctgctggc caaccccaac ggtttctccg cagcgatcga ggaactggtg
 60
 ctgcgttccc cagcgacat cgacgtggc gtcggcatgg aggcctcgcg cttcctcttc
 120
 gcagctccgg tcgccctggc catcggggca ggattcgtgc cggcgcgcaa gccggggaag
 180
 ctccccggcc aggtgtattc cgagaccttt gccatggagt acggggagga gaccctcacc
 240
 gtccaccagt acgccatcaa gccgggggtcg cgcgtcatca tcgtcgac
 288

<210> 2010
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 2010
 Asp Ile Thr Pro Leu Leu Ala Asn Pro Asn Gly Phe Ser Ala Ala Ile
 1 5 10 15
 Glu Glu Leu Val Leu Arg Ser Pro Arg Asp Ile Asp Val Val Val Gly
 20 25 30
 Met Glu Ala Arg Gly Phe Leu Phe Ala Ala Pro Val Ala Leu Ala Ile

35	40	45
Gly Ala Gly Phe Val Pro Val Arg Lys Pro Gly Lys Leu Pro Gly Gln		
50	55	60
Val Tyr Ser Glu Thr Phe Ala Met Glu Tyr Gly Glu Glu Thr Leu Thr		
65	70	75
Val His Gln Tyr Ala Ile Lys Pro Gly Ser Arg Val Ile Ile Val Asp		
85	90	95

<210> 2011
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 2011
 ctcgagcagt ctctgcatgt taacaccccc gtacggcccg taaagcataa ccgtctccga
 60
 cttgccgccc cctgcgtgct tcgctaggcg gccggtgaac ccacctgagg gccggatgta
 120
 gaagtcaacg gtggacgacg gggtggaggg tttgttgatt ggcgagtggg gaagcgagca
 180
 gattgtaaat tggtagaacg gggaacagag attagtcaca atgacgagaa cgacaacaga
 240
 atgttgattg ttatagccat ctctggagga gagggaaaaa gccaggtatc tagacagcga
 300
 aagcaaagtgt gagccgaggg gacagtgccg tccttcgttc ctcggcaact cccacgaggc
 360
 accttcatt ctgtgggcag aatt
 384

<210> 2012
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 2012
 Met Glu Gly Ala Ser Trp Glu Leu Pro Arg Asn Glu Gly Arg His Cys
 1 5 10 15
 Pro Leu Gly Ser His Leu Leu Ser Leu Ser Arg Tyr Leu Ala Phe Ser
 20 25 30
 Leu Ser Ser Arg Asp Gly Tyr Asn Asn Gln His Ser Val Val Val Leu
 35 40 45
 Val Ile Val Thr Asn Leu Cys Ser Pro Phe Tyr Gln Phe Thr Ile Cys
 50 55 60
 Ser Leu Pro His Ser Pro Ile Asn Lys Pro Ser Asn Pro Ser Ser Thr
 65 70 75 80
 Val Asp Phe Tyr Ile Arg Pro Ser Gly Gly Phe Thr Gly Arg Leu Ala
 85 90 95
 Lys His Ala Gly Gly Gly Lys Ser Glu Thr Val Met Leu Tyr Gly Pro
 100 105 110
 Tyr Gly Gly Val Asn Met Gln Arg Leu Leu Glu
 115 120

<210> 2013
 <211> 309

<212> DNA

<213> Homo sapiens

<400> 2013

gcgtatcccc acggctacgg catgaccgcg cttatcggcc cggacctgtc caccgtcgaa
60
gccttgctcg cccaggtcca cagcacacaa accccggtgt acctggccaa tatcaatgcc
120
gataaccaga cggttatcgc gggcagcgac ggggcaatga aagcagtcgc caatctggtc
180
cgcggaacg gcgtcgccaa acgcttgccc gtcagcgtgc cgtcccattg tgcgctgctg
240
gaaaaacctg ccgaaacact ggcccaagcc ttcgctgaag tgacgctgaa aacgccgncn
300
nnccccncn
309

<210> 2014

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2014

Ala	Tyr	Pro	His	Gly	Tyr	Gly	Met	Thr	Ala	Leu	Ile	Gly	Pro	Asp	Leu
1				5					10					15	
Ser	Thr	Val	Glu	Ala	Leu	Leu	Ala	Gln	Val	His	Ser	Thr	Gln	Thr	Pro
			20					25					30		
Val	Tyr	Leu	Ala	Asn	Ile	Asn	Ala	Asp	Asn	Gln	Thr	Val	Ile	Ala	Gly
		35					40					45			
Ser	Asp	Gly	Ala	Met	Lys	Ala	Val	Ala	Asn	Leu	Val	Arg	Gly	Asn	Gly
	50					55					60				
Val	Ala	Lys	Arg	Leu	Ala	Val	Ser	Val	Pro	Ser	His	Cys	Ala	Leu	Leu
65					70					75				80	
Glu	Lys	Pro	Ala	Glu	Thr	Leu	Ala	Gln	Ala	Phe	Ala	Glu	Val	Thr	Leu
				85				90						95	
Lys	Thr	Pro	Xaa	Xaa	Pro	Xaa									
				100											

<210> 2015

<211> 329

<212> DNA

<213> Homo sapiens

<400> 2015

acgcgtgccg tgctcgggtat ccgccgccac caccctgtct ttgggaccgg cgagttcacc
60
gatctaggcg ggccggacat ggcagtgatg tccttcctac gtcacaacga gcacgaaacg
120
gtcctgtgcc tggtctaatct ctccgatact gagcggacgg ttgcccttca ccttcacaa
180
ttcgcgggcg tggcgggctc ttctctcctc catggtcagg acgcgcaacc agtaaaagct
240
gacggaacac tgtccgtacc gttgtggcca tatggctatc gatggctgca gatgtccggt
300

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.